

Reinhold Grünendahl

South Indian Scripts  
in Sanskrit Manuscripts  
and Prints

Grantha Tamil – Malayalam –  
Telugu – Kannada – Nandinagari

Harrassowitz Verlag

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Please correct the following errata and defective font changes:

p. 16, line 5: c ు & ు

pp. 17, lines 5/6; 76: ○ -ḥ (jihvāmūlīya) ⊗ -ḥ (upadhmānīya)

p. 43, lines 8/9: e ు □ ē ు □

p. 73, line 1: ు -ṛ

p. 94, line 1:	ు	ు
	nya	dre
	3	9

p. 146, line 3: ṅghra ు

p. 153, line 10: ppū ు

p. 178, lines 6/7: ○ ○ -ḥ (jihvāmūlīya) ⊗ -ḥ (upadhmānīya)

p. 208, line 10: ṛṣe ు

p. 223, line 17: for VEṆKEṬAŚEṢA read VEṆKAṬAŚEṢA

interchange diacritics for jihvāmūlīya and upadhmānīya:

pp. 17, 76: for -ḥ read -ḥ (jihvāmūlīya)

pp. 17, 76, 92, 178: for -ḥ read -ḥ (upadhmānīya)

## Preface

The present guide is a by-product of my edition of the Śivadharmaśāstra as well as of my handling of the South Indian manuscript and print collections of the Niedersächsische Staats- und Universitätsbibliothek, Göttingen. It is intended to provide a basis for the self-reliant study of documents written in South Indian scripts. Apart from manuscripts and inscriptions (the latter with the qualifications explained below), this comprises printed editions of Sanskrit texts published in large numbers up to the 1930's. From about that time onward, Sanskrit printing in South Indian scripts was gradually marginalized by Devanagari type.

In the course of this development the former achievements of Southern printing gradually fell into oblivion, much to the detriment of Sanskrit studies, I believe. The major catalogues of Sanskrit printed books<sup>1</sup> testify to the wealth of this tradition, and there is reason to assume that its volume is considerably larger than recorded in those catalogues. Apart from facilitating access to the Southern text tradition in general, prints in South Indian scripts have brought to light a fair number of Sanskrit texts never published in Devanagari or any other North Indian script. However, it remains exceptionally difficult to trace their bibliographical data, let alone the prints themselves, especially in libraries outside South India.

To give an example from first-hand experience: Towards the end of my editorial work on the Viṣṇudharma I came across various references that led me to assume that the authors of the books in question had used a South Indian edition of the Viṣṇudharma that was hitherto unknown, at least to me. However, in the bibliographic reference tools available to me at that time this assumption did not materialize. When I visited the Adyar Library, Cennai (Madras), a storehouse of South Indian manuscripts and prints, in 1993, I simply checked the card catalogue, and there it was, a Telugu edition of the Viṣṇudharma that had escaped R.C. Hazra's notice as well as mine!

Those who do not have the good fortune of having easy access to the admirable collections of South Indian prints in Adyar and other places may be referred to the catalogue of printed Sanskrit books deposited in the

<sup>1</sup> See, e.g., *Catalogue of the Library of the India Office*, Vol. II, Part I, *Sanskrit Books*, [ed. by] PRANA NATHA and CHAUDHURI, JITENDRA BIMBALA, 4 vols., 1938–1957.



library of the Oriental Research Institute, Mysore,<sup>2</sup> a kind of bibliographic self-help kit in all such matters, and a very useful complement to the India Office Library catalogue mentioned above.

Measures to overcome this deplorable lack of information are easy to envisage, but not quite so easy to realize: A cumulative online catalogue will probably remain a librarian's castle in the air for some time to come, unless perhaps South India's booming computer industry, in a noble gesture of reverence to the subcontinent's cultural heritage, would bestow its blessings on libraries and other institutions struggling to preserve their exceptionally rich holdings.

By and large, the same applies to Sanskrit manuscripts in South Indian scripts. However, compared to catalogues of printed books, the range of South Indian manuscript catalogues, though limited to relatively few libraries, is stunning, as a look into K. L. JANERT's *Annotated Bibliography* will show.<sup>3</sup> In view of the abundance of tradition documented in these catalogues it is all the more regrettable that the projected successor to THEODOR AUFRICHT's *Catalogus Catalogorum*, the *New Catalogus Catalogorum* published by the University of Madras, seems to have come to an untimely halt.<sup>4</sup> As pointed out elsewhere, whatever the reason for this delay, the project deserves all the attention and help needed to get it back on track.<sup>5</sup>

The idea for this book came to me when I was collecting manuscript microfilms and prints in South India in 1993. Feeling quite unprepared for the task, I looked around for practical help, but all I chanced upon was a

<sup>2</sup> SETHARAMA SASTRY, S. (comp.): *A catalogue of printed Sanskrit works in the Government Oriental Library, Mysore (1891-1944)*. - Mysore: Govt. Branch Press, 1944. VENKATANATHACHARYA, N. S. (comp.): *A supplemental catalogue of printed Sanskrit works in the Oriental Research Institute, Mysore (1945-1956)*. - Mysore: Univ. of Mysore, 1957.

<sup>3</sup> JANERT, KLAUS LUDWIG: *An Annotated Bibliography of the Catalogues of Indian Manuscripts*. - Wiesbaden 1965 (*Verzeichnis der orientalischen Handschriften in Deutschland*, Suppl. 1).

<sup>4</sup> Calculated on the basis of Aufrecht's tripartite *Catalogus Catalogorum*, the *New Catalogus Catalogorum* has covered around 43 per cent of its ground in the 34 years since the publication of vol. 2 in 1966 (not taking into account the first edition of vol. 1 in 1949, replaced by a 2nd ed. in 1969). If it is continued at the same speed, it could take another 45 years until at least some of us would see its completion, but considering that the last volume was published in 1991, this seems a very optimistic estimate.

<sup>5</sup> See GRÜNKEVORH, R.: "A Plea for an Integrated Approach towards Manuscript Cataloguing", *Journal of the Nepal Research Centre*, 12 (2001), pp. 151-159, section 4.2.1.

few booklets designed for elementary instruction (see bibliography). Practical guides to South Indian scripts that gave adequate attention to the plethora of conjunct characters were hard to find.

When thinking about ways to fill this gap it seemed only natural to start with the material I had just collected, viz., manuscripts of the Śivadharmasāstra and the Viṣṇudharma, and various prints, among them the Viṣṇudharma edition mentioned above. On the one hand I already had prepared machine-readable versions of these two texts (c. 1,300 respectively 4,300 verses), which furnished evidence of all relevant characters and conjuncts. On the other hand, the Śivadharmasāstra tradition alone offered manuscripts in three of four South Indian scripts (the exception being Kannada). In a further stage, these materials were supplemented by other texts available in South Indian prints as well as in machine-readable versions, first and foremost the Bhagavadgītā (for details see bibliography). At about the same time I was entrusted with a collection of books in modern Indian languages taken over from the Seminar für Indologie und Buddhismuskunde, Göttingen, a considerable number of them being written in Dravidian languages and/or scripts. This fortunate coincidence put the project on a much firmer basis. Finally, the yield of these materials was compared with samples from the manuscript collection of the Niedersächsische Staats- und Universitätsbibliothek, Göttingen.

An endeavour like the present one requires the basic decision between particularity and generality. Should the delineation of a given script confine itself to one particular manuscript or should it comprise as many sources as possible, including printed texts? In my view the first method, although convincingly applied to other Indian scripts, is less suitable for a highly complex system such as Grantha Tamil, of which the following pages can only give an inadequate impression.

But the impression would have been even less adequate had I confined myself to the evidence of one particular manuscript. To begin with, even with a limited choice of manuscripts it would be difficult to decide which of them can be considered exemplary. Having made a choice, and accepted its inevitable randomness, one is tied to the characteristic features of that particular manuscript, no matter how 'typical' they may be. Furthermore, the choice entails undesirable limitations: As a rule, a given manuscript will offer only one variety of, say, the Grantha Tamil conjunct *ṛca*, which may



match one of the seven specimina given below (see p. 24). But with regard to the other six – provided they had come to one's notice in the first place – one is faced with the dilemma of either waiving the principal decision in favour of one particular manuscript or plainly excluding valuable evidence gathered from other sources. And there is another, equally undesirable limitation: Considering that hardly any individual manuscript will yield the full range of ligatures and conjuncts it may be asked how its limited evidence is to be complemented, or whether comprehensiveness should be tacitly sacrificed in favour of an ultimately unsustainable principle.

By comparison, an eclectic approach taking in all available sources – manuscripts and prints – has few disadvantages, apart from not finding favour with the purists. It will certainly increase general applicability of such a survey if the bewildering variety encountered in manuscripts, and the sometimes distinct conventions of prints, can be distilled to a diversified whole. Such an approach obviously requires a certain standard in the delineation of the scripts in question. To a degree, the printed type developed for these scripts in the late nineteenth and early twentieth centuries is the result of a similar distillation process, and therefore provides a suitable reference point for the standardization of the material collected in this book. I am confident that readers will have little difficulty in relating the standardized type to the individual character, and *vice versa*.

An additional advantage of standardization is that it elucidates the underlying principles of composition, especially with regard to conjuncts. An individual scribe may slur conjunct components beyond recognition, whereas they remain recognizable if standardized, and this in turn enhances the grasp of the underlying principles of composition.

With a view to achieving the degree of uniformity necessary for easy recognition of characters I designed a number of PostScript™ fonts with Fontographer™ 4.1.<sup>6</sup> These are definitely not intended as a contribution to professional typography, and seem to confirm FIONA ROSS' verdict that the wide dissemination of font designing tools had led to an abundance of very poor font designs.<sup>7</sup> It should be kept in mind though that I had to put the

<sup>6</sup> Apart from Fontographer™, no Windows™ based software was used in the composition of this book. The layout was done with WordPerfect™ 6.0 (DOS) supported by SmartKey™.

<sup>7</sup> ROSS, FIONA G. E.: *The Printed Bengali Character and Its Evolution*. Richmond: Curzon 1999, p. 223.

adequate representation of manuscript evidence before other aspirations. Furthermore, even within the limited range of my standardization efforts, font design already took far more time than I had planned, and at some point pragmatism had to prevail in order to carry the project to completion. After all, it had already caused yet another serious delay of my schedule for completing the edition of the Śivadharmasāstra.

A discussion of palæography and phonology definitely lies outside the scope of the present guide. Here the reader is referred to the pertinent titles in the bibliography. At present, a discussion of palæographical aspects would be premature anyway because this field of research will soon be put on a new basis by the ongoing 'Indoskript' project of the Indological institutes of Freie Universität Berlin and Universität Halle.

Generous spacing provides room for noting down variants one will inevitably come across in the course of one's study of manuscripts and prints in South Indian scripts. It is the primary purpose of the present guide to encourage such studies.

Besides, it is also intended to recall to memory an aspect of librarianship that tends to be ignored by the modern travesty of an academic librarian striking the eye in the peculiar blend of a self-styled global player in information management and a smug media worker.

My debt of gratitude is to Gerhard Ehlers (Berlin) for going through earlier versions of the Grantha Tamil, Malayalam and Telugu sections and contributing numerous additions and corrections, to Ute Hüsken (Göttingen) for procuring material from India, and for her help and encouragement through the various stages of this project, to Heike Moser-Achuthath (Tübingen), from whose expertise the Malayalam section has benefitted considerably, to the Deutsche Forschungsgemeinschaft for funding the publication of this book, and to Harrassowitz Verlag for undertaking it.

Reinhold Grünendahl



## Terms<sup>1</sup> and Symbols

<i>Conjunct</i>	The graphic connection of a consonant with another consonant or consonants, whereby another shape is produced.
<i>Consonant cluster</i>	The unconnected combination of a consonant with another consonant or consonants, which leaves all components graphically unaltered, except in size and position.
<i>Ligature</i>	The combination of a consonant with a vowel diacritic.

- 
- & separates variants (not used in lists of conjuncts)
  - \* a Tamil character in a Grantha Tamil context
  - # a numeral
  - represents a host consonant (in displaying vocalization etc.)

<sup>1</sup> Cf. Ross 1999:236f.

## Introduction

Most of the hitherto published works on Indian palaeography focus on the historical development of the various Indian scripts based on the evidence of inscriptions and manuscripts. Especially works on South Indian palaeography rely almost exclusively on epigraphic evidence, which may be due to the extreme scarcity of South Indian manuscripts with verifiable dates. In consequence, these works usually turn out to be moderately useful for the practical purpose of actually learning a script: to begin with, they can only offer the limited range of characters documented in inscriptions. Furthermore, epigraphic characters of a given script differ considerably from those encountered in manuscripts.

The present book is an attempt to fill this gap. Some practical hints for readers may not be out of place:

Variants of basic characters are given in the respective systematic sections under *-a/-ā* (see box on top of the page). These variants have not been carried through all non-*a* vocalizations unless a particular ligature appears more frequently or seemed worthwhile to recall as a variant of a basic character. The large-size outline tables give only the 'standard' form.

Both long and short diphthongs (*e/ē, o/ō*), the distinction of which is a characteristic of several Dravidian languages and scripts, have found their way into South Indian Sanskrit manuscripts and prints. In some sources they seem to be used indiscriminately while in others preference is given to one or the other. As a rule, I have given the exact transliteration of long and short diphthongs although the distinction is inconsequential for Sanskrit (for examples see the lists of conjuncts).

The charts and outline tables display a number of ligatures (i.e., vocalizations) not sanctioned by Sanskrit phonetics. This certainly makes them rather hypothetical and difficult to document in texts as, e.g., ligatures of vocalic *-i* with consonants other than *k*. But I can detect no harm in including them just the same. And, if required, each and every one of them can actually be documented, albeit in one particular context alone, viz., the South Indian 'letter-numerals' occasionally used for numbering the folios of manuscripts. The system of 'letter-numerals' reserved for this purpose is different from the one employed in other contexts, which combines basic characters and conjuncts in no apparent order, all of them ending in *-a*,



with three exceptions (see the Malayalam section, p. 94).<sup>2</sup> By contrast, the letters used for manuscript pagination follow the sequence of the Sanskrit alphabet, usually beginning with the vowels from *a* to *au* (plus *am/ah/iti*) followed by the consonants from *k-* to *h-* (plus *ks-/ṣk-/sp-*) declined through the entire range of vocalizations from *-a* to *-au*.<sup>3</sup> Gerhard Ehlers once pointed out to me that these 'letter-numerals', apart from their obvious function, could also be intended to provide the reader of a given manuscript with a reference aid for getting acquainted with the hand of its scribe. In view of the fact that such mss. frequently display a parallel numbering in digits it seems likely that this is the principal purpose of South Indian 'letter numerals' – contrary to letter numerals in Nepalese manuscripts, for example.

The following notes on some graphic aspects of the scripts in question are intended to facilitate orientation in the sometimes confusing variety of characters. Palæographical and phonological aspects are of no concern here.

### Grantha Tamil

Grantha Tamil is by far the most complex of the South Indian scripts applied to Sanskrit texts. Finding this complexity difficult to summarize in words I have tried to map it out in an attempt at graphic classification (pp. 59–76), which, it is hoped, will need no further comment here.

2 Cf. C. BENDALL 1896.

3 Cf. BURNELL 1878:80. At least to my knowledge, the South Indian systems of letter-numerals have not yet been studied in great detail. Here are some examples taken from manuscripts deposited in the Niedersächsische Staats- und Universitätsbibliothek, Göttingen. First, a rather typical numbering method according to a Rāmāyaṇa-Ms. in Tamil Grantha (Cod. Ms. Sansr. Schr. 75): vowels from *a* to *au* (1–14), *am* (15), *ah* (16), consonants with inherent *a* from *ka* to *ha* (17–49), then *la*, *kṣa*, *ṣka*, *spa*, *am*(?), *iti* (50–55), followed by *ka* [repeated], *kā*, *kī*, *kī*, *kū*, *kū*, *kṛ*, *kṛ*, *kṛ*, *kṛ*, *ke*, *kai*, *ko*, *kau* (56–69), *kaṃ* (70), *kaḥ* (71), and so on through the rest of the alphabet (*kha*, *kḥa*, *khi*, *kḥi* etc.). An interesting variation can be found in an incomplete manuscript of the Taittirīya-Saṃhitā (Cod. Ms. Sansr. Schr. 6): *ka-ha* (1–33), *la*, *kṣa*, *ṣka*, *spa*, *am*(?), *iti* (34–39), then *ka*, *kā*, *kī*, *kī*, *kū*, *kū*, *kṛ*, *kṛ*, *kṛ*, *kṛ*, *ke*, *kai* (40–51); after a gap caused by missing folios, the numbering continues with *chā* ('70', according to the somewhat incongruous parallel numbering in numerals) etc.

### Tamil

Tamil script (for the Tamil language) is included here because Sanskrit manuscripts and prints in Tamil Grantha frequently display Tamil characters (e.g., ஸா *la* for ஸ *la* in ஸாஸாஸாஸாஸா *pātāṭāṭā*). Furthermore, in spite of its limited range of characters, Tamil script is frequently used for printing entire Sanskrit texts, especially popular editions of religious texts such as the பகவத்கீதை, in large numbers. Although they are seldom encountered in a Sanskrit context, I have also included Tamil abbreviations and other features that are hard to find in the usual reference works.

The following remarks on graphic elements of the Tamil script are based on BEYTHAN's observations (1943:14ff.):

A hook is added at the lower right to distinguish between initial ஆ *ā-* and அ *a-*, and likewise between diacritic ஁ *-ū* and ஁ *-u* (in னு *nū*, டு *pū*, டு *yū*, வு *vū*). Similarly, the end of initial ஒ *ō-* is curled to distinguish it from ஓ *o-*. An added ஸ *l*-graph distinguishes initial ஸ *ū-* from ஸ *u-*, initial ஸ *au-* from ஸ *o-*, and diacritic ஸ *-au* from ஸ *-e*.

A curl distinguishes diacritic ி *-ī* from ி *-i*, preceding diacritic ெ *-ē* / ெ *-ō* from ி *-e* and ி *-o*, as well as a variant of diacritic *-ū* from *-u* (in து *tū*, மு *mū*, ரு *rū*, ழு *lū*, ழு *lū*). It should be noted that diacritic *-u/-ū* show the greatest variety of all vocalizations.









A thorn at the lower right distinguishes initial ஏ *ē-* from ஏ *e-* and (where necessary) ரா from diacritic ரா *-ā*, while the ரா *-ā*-element distinguishes ஸா *-o* from ஸா *-e*, and ெ *-ō* from ெ *-ē*. A similar graphic element denotes diacritic *-ū* (in னு *nū*, னு *nū*, து *tū*, நு *nū*, ழு *lū*, மு *mū*, ரு *rū*, னு *nū*) if the respective *-u* character ends in an upward stroke (னு *nū* etc.).



The three characters that have a curve at the bottom to denote diacritic *-ā* (viz., னா *nā*, ரா *rā*, னா *nā*) retain it in *-o/-ō*: னா *no*, ரா *ro* etc.



### Grantha Malayalam (Ārya Eḷuttu)














The graph for unaugmented diacritic ன *-au* distinguishes initial (alternat.) ன *i-* from ன *i-*, ன *ū-* from ன *u-*, ன *ī-* from ன *i-*, ன *au* from ன *o*, and diacritic ன *-au* from ன *-e*.



The two older varieties of diacritic -u  /  and -ū  /  are invariably applied according to the pattern laid down in the respective table (pp. 84f.). This pattern is also applied if such -u ligatures appear as final members of a conjunct/consonant cluster:  *ktu*,  *ktū*,  *knu*,  *kñū* etc.




















In consonant clusters built with *virāma* attached to the first component, diphthong diacritics are written between the *virāma* and the following component, e.g.,  *ñkē*,  *tsnyē*.

The inventory of prepausal characters is rather small, compared to Grantha Tamil. However, in Grantha Malayalam prepausal characters for voiceless plosives also stand for their voiced counterparts. Thus  -*k* also serves for -*g*,  -*t* for -*d*, and also for -*l*!<sup>4</sup>

A triangular mark  indicates gemination in conjuncts with preceding *r*-, viz.  *rc(c)a*,  &  *rb(b)a*,  *rbh(bh)a*,  *rm(m)a*,  &  *ry(y)a*,  &  *rv(v)a* including the non-*r*- variants of those conjuncts ending with an upward stroke to the right, especially  *cca*,  *mma* and  *yya*.





Variants of the simplified Malayalam script introduced in the 1970s and 1980s have been included.

Due to their graphic similarity, the following characters may be difficult to distinguish, especially in manuscripts:<sup>5</sup>



	<i>c-</i>		<i>pri</i>		
	<i>-au</i>		<i>na</i>		
	<i>ca</i>		<i>pa</i>		<i>va</i>
	<i>sa</i>		<i>da</i>		<i>ma</i>
	<i>ta</i>		<i>ka</i>		
	<i>o</i>		<i>la</i>		
	<i>u</i>		<i>la</i>		<i>nya</i>
	<i>nva</i>		<i>mpa</i>		



Finally, some notes on writing Prakrit in Malayalam script:

'*anusvāra*' preceding a consonant may indicate gemination:

 *m'ta* =  *tta*,  *m'tha* =  *ttha*

*anusvāra* on top of a consonant or vowel indicates nasalization:























 =  *nambha*



'*anusvāra*' may stand for *yya*:  *a'm'a* =  *ayya*

<sup>4</sup> As pointed out by GUNDETT (1872:xiv) and others, in Malayalam -*t* is pronounced -*l*.










<sup>5</sup> List contributed by Heike Moser-Achuthath.

## Telugu

















There are two conspicuous characteristics distinguishing Telugu (and Kannada) from Grantha Tamil and Malayalam. One is the vertical stroke  (Tel. *jada* or *ottu* or *vottu*) marking all aspirated stops except  *tha*. The vertical stroke of  *kha* may be considered dispensable in so far as the basic character is clearly set apart anyhow and, consequently, *kha* does not have the aspiration mark in the related Kannada script (see below). The remaining Telugu aspirates need the vertical stroke to distinguish them either from their unaspirated counterpart (viz.,  *cha* from  *ca*,  *dha* from  *da*,  *pha* from  *pa*, and  *bha* from  *ba*) or from unrelated characters (viz.,  *gha* from  *ma* and  *jha* from  *ya*; for headmarks see below). Strictly speaking, the aspiration mark in  *tha* achieves little by way of distinction because there is no unmarked counterpart, and  *tha* bears no resemblance with unaspirated  *ta*. Instead, the dot in the middle distinguishes  *tha* from  *dha*. However, especially in older prints the distinction between  *tha* and  *dha* is not always made.

The second graphic characteristic of Telugu and Kannada is the headmark (Tel. *talakṣaṭṭu*, Kan. *talekṣaṭṭu*) above some characters with inherent -*a*, taking different forms in Telugu  and Kannada . According to BURNELL (1878:17), this headmark developed from a short cross stroke which, in previous stages of palæographic development, marked the upper end of a perpendicular stroke at the character's origin. With regard to this headmark, Telugu consonants fall into three categories:







– 8 consonants without headmark:




 *kha*,  *na*,  *ja*,  *ṇa*,  *ta*,  *ṇa*,  *ba*,  *la*, (and  *ra*),

– 19 with a headmark in central position and/or attached to the body of the character:

 *ga*,  *ca*,  *cha*,  *jha*,  *tha*,  *da*,  *dha*,  *ta*,  *tha*,  *da*,  *dha*,  *na*,  *bha*,  *ma*,  *ya*,  *ra*,  *va*,  *ṣa*, (and  *ṣa*),

– 6 with a headmark to the left of the centre and detached from the body:

 *gha*,  *pa*,  *pha*,  *ṣa*,  *sa*,  *ha*.

As a rule, the position of the headmark determines the position of diacritic  -*ā* (Tel. *dirgham*),  -*ī* (Tel. *guḍi*, circle),  -*ī* (Tel. *guḍiḍirgham*) as well as diphthong diacritics.



– Consonants *without* headmark add diacritic *-ā/-i/-ī/-[diphthong]* to the right, attached to the upward stroke, and sometimes merging with it (as, e.g., in లా *lā*, లి *li*, లీ *lī*, లే *le* etc.). However, some consonants without headmark have diacritic *-ā* in central position:

- జా *jā*, apparently in order to avoid confusion with జొ *jō*,
- ణా *ṇā* because it has no upward stroke,
- బా *bā* by obvious analogy with భా *bhā* derived from భ *bha* which, by distinction, bears a headmark.

– Consonants *with* headmark replace it by diacritic *-ā/-i/-ī/-[diphthong]*. If the headmark is in a detached position to the left of the centre (i.e., ప *pa*, ఫ *pha*, ష *ṣa*, స *sa*; for ఘ *gha* and హ *ha* see below), diacritic *-ā/-o/-ō/-au* replacing it start from the position determined by the headmark, thus intersecting the upward stroke to the right (e.g., పా *pā*, పో *pō*, పో *pō*, పా *pau*). This, by the way, distinguishes పా *pā*, పా *pau* from వా *vā*, వా *vau*, and సా *sā*, సా *so*, సో *sō*, సా *sau* from నా *nā*, నా *no*, నో *nō*, నా *nau*.

Exceptions:

If the body of the consonant ends with a hook ఁ (viz., ఘ *gha*, య *ya*), the headmark remains and, graphically similar to diacritic ా *ā*, ా *-ā* is attached to the final hook: ఘా *ghā*, యా *yā*, whereas *-i/-ī/-[diphthong]* usually take the position of the headmark: మి *mi*, మీ *mī*, మే *me*, మే *mē* etc.

However, there are further exceptions:

- య *ya* replaces the headmark with diacritic *-o/-ō/-au*: యో *jho*, యో *jhō*, యో *jhou*, or alternatively retains the headmark and adds *-o/-ō/-au* to the right: యో *jho*, యో *jhō*, యో *jhou*.
- ఘ *gha* does not take *-i/-ī/-[diphthong]* at the position of the headmark but attaches them in the centre: ఘి *ghi*, ఘి *ghī*, ఘే *ghe*, ఘే *ghē* etc.
- The *i*-related semi-vowel య *ya* deserves special attention because it retains its headmark in యా *yā*, but drops it in *-i/-ī*: యి *yi*, యి *yī*!
- In హ *ha* the headmark is treated as part of the character's body, and is thus retained in the formation of హా *hā* as well as హో *ho*, హో *hō* (alternatively హో *ho*, హో *hō*; see below), and హౌ *hau*.

*-i/-ī* ligatures:

Most consonants with an upward stroke bearing a headmark (చ *ca*, ఛ *cha*, త *ta*, న *na*, భ *bha*, మ *ma*, వ *va*, శ *śa*, ష *ṣa*) or with a hook to the right (ఖ *kha*, జ *ja*, బ *ba*, ల *la*) attach an integrated variant of diacritic *-i/-ī*: ఖి *khi*, ఖి *khi*, చి *ci*, చి *cī*, ఛి *chi*, ఛి *chī*, జి *ji*, జి *jī*, etc.

Another variant of diacritic *-i/-ī* is attached to closed circular consonants or suchlike elements thereof which bear a headmark: రి *ri*, రి *ri* (alternatively: రి *ri*), థి *thi*, థి *thi*, థి *thi*, థి *thī*, ది *di*, ది *dī*, ధి *dhi*, ధి *dhi*, రి *ri*, రి *ri*.

*-u/-ū* ligatures:

వ *va* and ప *pa* ఫ *pha* denote diacritic *-u* (Tel. *kōmmu*, horn) with ఁ instead of ఁ to clearly distinguish వు *vu* (and పు *pu*) from మ *ma*, and ఫు *phu* from ఘ *gha*; likewise, they denote *-ū* with ఁ instead of ఁ to distinguish వూ *vū* (and పూ *pū*) from మా *mā*, and ఫూ *phū* from ఘా *ghā*.

*-o/-ō* ligatures:

Several Telugu characters (alternatively) denote *-o/-ō* by combining their respective *-e* ligature with diacritic ఁ/ఁ *-u/-ū* (as is the rule in Kannada; see below). However, only హ *ha* fully complies with this pattern: హో *ho*, హో *hō* (alternatively హో *ho*, హో *hō*). As against that, ఘ *gha*, మ *ma* and య *ya* follow suit only in *-o* (viz., ఘో *gho*, మో *mo*, యో *yo*), while in *-ō* ligatures the last hook ఁ of the basic character is dropped: ఘో *ghō*, మో *mō*, and యో *yō*! Finally, by analogy with its *-u/-ū* ligatures mentioned above, వ *va* adds variant ఁ/ఁ *-u/-ū* to distinguish వో *vo* from మే *me*, and వో *vō* from మో *mō* (alternative forms: వో *vo*, వో *vō*).

An additional feature distinguishing Telugu (and Kannada; see below) from Grantha Tamil and Malayalam emerges from the above description of ligatures, viz., the notation of several non-*a* vowels: Diacritic *-ā* (with qualifications), *-e/-ē*, *-ai*, *-o/-ō*, *-au* are not denoted sideways, but on top of the respective consonant.

Consonant clusters and conjuncts:

If two or more consonants are combined without a separating vowel, the consonants following are written below the first and lose their headmarks. Various consonants take a special form when subscribed in this manner (see p. 136f.). In general, the construction and arrangement of consonant clusters



is predictable, although the position of diacritics for non-*a* vowels can be puzzling. As a rule, consonant clusters are read from top to bottom and from left to right; the vowel – non-*a* diacritics usually being attached to the basic consonant of the cluster (except with alternative  $\square\text{pu}$   $\square\text{pū}$  /  $\square\text{phu}$   $\square\text{phū}$ ) – is pronounced only after the last component. This requires some circumspection, especially in reading more complex clusters such as *rtnye* (see list). It should be noted that, contrary to other non-*a* diacritics, the lower component of -*ai*  $\square$  is not directly attached to the basic consonant but written at the bottom of the cluster/conjunct, e.g.,  $\square\text{ntai}$ .

In some cases the sequence of components is modified, apparently for pragmatic reasons (see list for *tpra* [actually 'trpa']; *sstha* ['sthsa'], the first *s* standing for visarga).

Class nasals are frequently replaced by *anusvāra* (or *ardhānusvāra*). However, they appear in their 'regular' shape, too, and have therefore been included in the list.<sup>6</sup>

Some clusters and conjuncts, especially those with -*r*-, can be written in a variety of ways, which have not been carried through in each and every case. A glance at the context of the respective section will help to complement the picture, it is hoped.

### Kannada

Most of what has just been said of Telugu holds good for Kannada, too. A vertical stroke  $\square$  (e.g., in  $\square\text{dha}$ ) marks all aspirated stops except  $\square\text{kha}$  (cf. Telugu section above) and  $\square\text{pha}$ .

The groups of consonants distinguished with regard to the headmark (Kan. *taleḥattu*) are very similar to those in Telugu:

– 8 without a headmark:

$\square\text{kha}$ ,  $\square\text{ṇa}$ ,  $\square\text{ja}$ ,  $\square\text{ṇa}$ ,  $\square\text{ṇa}$ ,  $\square\text{ṇa}$ ,  $\square\text{ba}$ ,  $\square\text{la}$  (and  $\square\text{ṇa}$ ,  $\square\text{ṇa}$ ),

– 21 with a headmark attached to the body of the character:

$\square\text{kha}$ ,  $\square\text{ga}$ ,  $\square\text{gha}$  (alternat.),  $\square\text{ca}$ ,  $\square\text{cha}$  &  $\square\text{cha}$ ,  $\square\text{jha}$ ,  $\square\text{pha}$ ,  $\square\text{ḍa}$ ,  $\square\text{ḍha}$ ,  $\square\text{ta}$ ,  $\square\text{tha}$ ,  $\square\text{da}$ ,  $\square\text{dha}$ ,  $\square\text{na}$ ,  $\square\text{bha}$ ,  $\square\text{ma}$ ,  $\square\text{ya}$ ,  $\square\text{ra}$ ,  $\square\text{va}$ ,  $\square\text{ṣa}$ ,  $\square\text{ha}$  (alternat.), (and  $\square\text{ḷa}$ ),

<sup>6</sup> By contrast, C.P. BROWN (1854:xxiv) considered this "an empty innovation (...) not likely to become popular".

– 6 with a headmark detached from the body due to the right upward stroke usually ending well below it:

$\square\text{gha}$  &  $\square\text{gha}$  (alternat.),  $\square\text{pa}$ ,  $\square\text{pha}$ ,  $\square\text{ṣa}$ ,  $\square\text{sa}$ ,  $\square\text{ṣa}$  &  $\square\text{ṣa}$  (alternat.).

These characters have a dot (or small circle) as an additional feature.

The dot determines the position of -*ā* / -*i* / -*ī* / -[diphthong] diacritics and, combined with the shorter upward stroke, distinguishes  $\square\text{pā}$  /  $\square\text{pi}$  /  $\square\text{pe}$  etc. from  $\square\text{vā}$  /  $\square\text{vi}$  /  $\square\text{ve}$  etc.,  $\square\text{sā}$  /  $\square\text{si}$  /  $\square\text{se}$  etc. from  $\square\text{nā}$  /  $\square\text{ni}$  /  $\square\text{ne}$  etc.

In the absence of a special graph for (long) diacritic -*ī* / -*ē* / -*ō*, the length is marked by adding  $\square$  (*dirgha*) to diacritic -*i* / -*e* / -*o*:  $\square\text{ī}$ ,  $\square\text{ē}$ ,  $\square\text{ō}$ .

-*i* ligatures:

Most consonants with an upward stroke bearing a headmark ( $\square\text{ca}$ ,  $\square\text{cha}$ ,  $\square\text{ta}$ ,  $\square\text{na}$ ,  $\square\text{bha}$ ,  $\square\text{ma}$ ,  $\square\text{va}$ ,  $\square\text{ṣa}$ ,  $\square\text{ḷa}$ ) or with a hook to the right ( $\square\text{kha}$ ,  $\square\text{ja}$ ,  $\square\text{ba}$ ,  $\square\text{la}$ ) attach an integrated variant of diacritic -*i*:  $\square\text{khi}$ ,  $\square\text{ci}$ ,  $\square\text{chi}$ ,  $\square\text{ji}$ ,  $\square\text{ti}$ ,  $\square\text{ni}$ ,  $\square\text{bi}$ ,  $\square\text{bhi}$ , etc.

Another variant of diacritic -*i* is attached to round or circular elements bearing a headmark:  $\square\text{gi}$ ,  $\square\text{jhi}$ ,  $\square\text{ṭhi}$ ,  $\square\text{ḍi}$ ,  $\square\text{ḍhi}$ ,  $\square\text{thi}$ ,  $\square\text{di}$ ,  $\square\text{dhi}$ ,  $\square\text{ri}$ .

-*u* / -*ū* ligatures:

$\square\text{va}$  and  $\square\text{pa}$   $\square\text{pha}$  denote diacritic -*u* with  $\square$  instead of  $\square$  to clearly distinguish  $\square\text{vu}$  (and  $\square\text{pu}$ ) from  $\square\text{ma}$ , and  $\square\text{phu}$  from  $\square\text{gha}$ ; likewise, they denote -*ū* with  $\square$  instead of  $\square$ , which distinguishes  $\square\text{vū}$  (and  $\square\text{pū}$ ) from  $\square\text{ma}$ , and  $\square\text{phū}$  from  $\square\text{gha}$ .

-*o* ligatures:

In Kannada -*o* / -*ō* is generally denoted by combining the respective -*e* ligature with diacritic  $\square$  -*ū*, e.g.,  $\square\text{ko}$ ,  $\square\text{ḷō}$ .

$\square\text{ma}$  and  $\square\text{ya}$  lose the last hook of their -*e* ligatures ( $\square\text{me}$  /  $\square\text{ye}$ ) in  $\square\text{mo}$   $\square\text{yo}$  /  $\square\text{mō}$   $\square\text{yō}$ .

Consonant clusters:

The principles for consonant clusters in Kannada are the same as those described for Telugu (see above). Diacritics for non-*a* vowels are attached to the basic consonant of the cluster. Subordinate consonants, including post-

<sup>7</sup> There is an alternative form for  $\square\text{pā}$  with a longer upward stroke intersected by diacritic -*ā*:  $\square\text{pā}$ .

consonantal *-r*, are written after non-*a* diacritics attached to the basic consonant (e.g.,  $\text{သြ}$  *dru*). Only the subscribed component of *-ai* is written after post-consonantal *-r* (e.g.,  $\text{တြိ}$  *trai*). Pre-consonantal *-r* follows the aforementioned components ( $\text{တြိ}$  *rtsnya*), but usually precedes post-consonantal *-r* (e.g.,  $\text{တြိ}$  *rtre*); the *dirgha* graph  $\text{ရ}$  denoting *-ī/-ē/-ō* usually takes the final position in the cluster (e.g.,  $\text{ထိရ}$  *rthī*,  $\text{ထိရ}$  *rtre*).

### Nandinagari

In spite of the abundance of manuscripts written in Nandinagari, this variety of the Northern Devanagari is perhaps the least-documented South Indian script used for writing Sanskrit texts. The cursory treatment in BURNELL's *South Indian Palaeography* does not even yield a complete alphabet of basic characters. The appendix (pp. 201–210) compiled on the basis of my own limited material and a few specimens consulted in the Staatsbibliothek Berlin sketches only the distinctive features, stressing the differences rather than the similarities in relation to the Nagari of North Indian provenance.

Finally, the checklist of conjunct components and the table displaying the years of the Br̥haspati cycle according to the South Indian calendar may be helpful in handling manuscripts.

### Grantha Tamil: Basic Characters & Ligatures

Vowels	Initial	Diacritic
a	அ	
ā	ஆ	□ா
i	இ	□ி & □ி
ī	ஈ	□ீ
u	உ	□ு
ū	ஊ & உஃ & உஔ	□ூ
ṛ	ஊ	□ு & று
ṝ	ஊ & ஊஃ	□ு
ḷ	ள	□ள
ḹ	ள & ளு	□ள
e	ஏ & உ	□ெ & □ெ
ai	ஏ & உ	□ெ
o	ஒ & ஓ	□ொ
au	ஒ	□ொ & □ொ



*Consonants: Velar*

ka	க
kha	கெ & கெ
ga	க & க
gha	கெ
ṇa	ஞ & ஞ & ஞ

*Palatal*

ca	செ & செ
cha	செ & செ
ja	ஜ
jha	செ & செ
ṇa	ஞ & ஞ

*Retroflex*

ṭa	ட & ட
ṭha	ஓ & ஓ
ḍa	ட
ḍha	ஊ & ஊ
ṇa	ண

*Dental*

ta	த & த & த
tha	த
da	த & த
dha	த
na	ந & ந & ந

*Labial*

pa	ப
pha	பெ
ba	பெ
bha	பெ & பெ & பி
ma	ம & ம

*Sibilants*

śa	ஸ & ஸ
ṣa	ஷ
sa	ஸ

*Sonorants (conjuncts p. 17)*

ya	ய
ra	ர & ர
la	ல
va	வ

*Other*

ha	ஹ & ஹ
ḷa	ழ & ழ
	[for (ய) la]

-a / -ā

k-	க	கா	kh-	கெ & கை	கொ
g-	க & கி	கா	gh-	கெ	கொ
ñ-	கெ & கை	கொ			
c-	செ & சை	சொ	ch-	செ & சை	சொ
j-	ஜெ	ஜொ	jh-	ஜெ & ஜை	ஜொ
ñ-	ஞெ & ஞை	ஞொ			
ṭ-	டெ & டை	டொ	ṭh-	டெ & டை	டொ
ḍ-	டெ	டொ	ḍh-	டெ	டொ
ṇ-	ணெ	ணொ			
t-	தெ & தை	தொ	th-	தெ	தொ
d-	தெ & தை	தொ	dh-	தெ	தொ
n-	நெ & நை	நொ			

-a / -ā

p-	பெ	பொ	ph-	பெ	பொ
b-	பெ	பொ	bh-	பெ & பை	பொ
m-	மெ & மை	மொ			
y-	யெ	யொ			
r-	ரெ	ரொ			
l-	லெ	லொ			
v-	வெ	வொ			
ś-	செ & சை	சொ			
ṣ-	செ	சொ			
s-	செ	சொ			
h-	ஹெ	ஹொ			
ḷ-	ழெ & ழை	ழொ			



-i / -ī

k-	கி & கீ	கி	kh-	கெ	கே
g-	கி & கீ	கி	gh-	கெ	கே
ñ-	கி	கி			
c-	கி	கி	ch-	கெ	கே
j-	கி & கீ	கி	jh-	கெ	கே
ñ-	கி	கி			
ṭ-	கி & கீ	கி	ṭh-	கெ & கே	கே
ḍ-	கி	கி	ḍh-	கி	கி
ṇ-	கி	கி			
t-	கி & கீ	கி & கீ	th-	கெ	கே
d-	கி & கீ	கி & கீ	dh-	கெ & கே	கே
n-	கி & கீ	கி			

-i / -ī

p-	கெ	கே	ph-	கெ	கே
b-	கெ & கே	கே	bh-	கெ & கே	கே
m-	கி	கி			
y-	கெ	கே			
r-	கெ & கே	கே			
l-	கெ	கே			
v-	கெ	கே			
ś-	கெ & கே	கே			
ṣ-	கெ	கே			
s-	கெ	கே			
h-	கெ	கே			
ḷ-	கெ	கே			

-u / -ū

k-	கூ & கூ	கூ & கூ	kh-	வூ	வூ
g-	கு & கு	கு & கு	gh-	வூ	வூ
ñ-	ஐ	ஐ			
c-	உ	உ	ch-	உ	உ
j-	ஜ	ஜ	jh-	ஈ	ஈ
ñ-	சூ	சூ			
ṭ-	ட	ட	ṭh-	ஓ	ஓ
ḍ-	ஐ	ஐ	ḍh-	ஐ	ஐ
ṇ-	ண	ண			
ṛ-	ரு & ரு	ரு	ṛh-	யூ	யூ
d-	உ & உ	உ & உ	dh-	யூ	யூ
n-	நு & நு	நு			

-u / -ū

p-	பூ & பூ	பூ & பூ	ph-	வூ	வூ
b-	பூ & பூ	பூ	bh-	பூ & பூ	பூ & பூ
m-	மூ & மூ	மூ & மூ			
y-	யூ & யூ	யூ & யூ			
r-	ரூ & ரூ	ரூ & ரூ	& ரூ	(=ra-i)	
l-	லூ	லூ	v-	வூ	வூ
ś-	சூ & சூ	& சூ	சூ		
ṣ-	சூ & சூ	சூ & சூ			
s-	சூ	சூ			
h-	ஹூ & ஹூ	ஹூ			
ḷ-	லூ	லூ			



-ṛ / -ṝ

k- க்ஷ & க்ஷ̄ க்ஷ க்ஷ̄  
 g- க்ஷ & க்ஷ̄ க்ஷ க்ஷ̄  
 ... etc.

*Variants:*

ṛ க்ஷ & க்ஷ̄  
 ṛ க்ஷ & க்ஷ̄

-ṛ / -ṝ

k- க்ஷ க்ஷ̄ ... etc.

-e / -ai

k-	கெ	கெ	kh-	கெ	கெ
g-	கெ	கெ	gh-	கெ	கெ
ñ-	கெ	கெ			
c-	கெ	கெ	ch-	கெ	கெ
j-	கெ	கெ	jh-	கெ	கெ
ñ-	கெ	கெ			
ṭ-	கெ	கெ	ṭh-	கெ	கெ
ḍ-	கெ	கெ	ḍh-	கெ	கெ
ṇ-	கெ	கெ			
t-	கெ	கெ	th-	கெ	கெ
d-	கெ	கெ	dh-	கெ	கெ
n-	கெ	கெ			

-e / -ai

p-	கெ	கெ	ph-	கெ	கெ
b-	கெ	கெ	bh-	கெ	கெ
m-	கெ	கெ			
y-	கெ	கெ			
r-	கெ	கெ			
l-	கெ	கெ			
v-	கெ	கெ			
ś-	கெ	கெ			
ṣ-	கெ	கெ			
s-	கெ	கெ			
h-	கெ	கெ			
ḷ-	கெ	கெ			



-o / -au

k-	கொ	கூள்	kh-	கொ	கூள்
g-	கொ	கூள்	gh-	கொ	கூள்
ñ-	கொ	கூள்			
c-	கொ	கூள்	ch-	கொ	கூள்
j-	கொ	கூள்	jh-	கொ	கூள்
ñ-	கொ	கூள்			
t-	கொ	கூள்	th-	கொ	கூள்
d-	கொ	கூள்	dh-	கொ	கூள்
n-	கொ	கூள்			
t-	கொ	கூள்	th-	கொ	கூள்
d-	கொ	கூள்	dh-	கொ	கூள்
n-	கொ	கூள்			

-o / -au

p-	கொ	கூள்	ph-	கொ	கூள்
b-	கொ	கூள்	bh-	கொ	கூள்
m-	கொ	கூள்			
y-	கொ	கூள்			
r-	கொ	கூள்			
l-	கொ	கூள்			
v-	கொ	கூள்			
ś-	கொ	கூள்			
ṣ-	கொ	கூள்			
s-	கொ	கூள்			
h-	கொ	கூள்			
ḷ-	கொ	கூள்			

-au alternatively  
with prefixed கி:

kau கொ  
khau கொ  
gau கொ  
ghau கொ  
ṇau கொ  
... etc.

*Prepausal Consonants (cf. Conjuncts)*

k	க	n	ந & ன
g	க & ங & ஞ	p	ப
ñ	ஞ & ன	b	ப
c	ச & ஓ	m	ம
j	ஜ	y	ய
ñ	ஞ & ன	r	ர
ṭ	ட	v	வ
ḍ	ட & ட	ṣ	ஸ
ṇ	ண	ṣ	ஷ
t	த	s	ஸ்
d	த	h	ஹ

*Additional Graphs*

௪	-m
○	-ṁ (anusvāra)
ஃ & ஂ & ஃ & ண	-ḥ (visarga)
⊗	-ḥ (jihvāmūlīya)
○	-ḥ (upadhmānīya)
ℵ & ॐ	avagraha
₹	pluti

*Conjunct Forms of Sonorants*

௪ & ௪ & ௪ & ௪	-y-, e.g. śya-: ஸ்ய & ஸ்ய etc.
௪ & ௪ & ௪	post-consonantal -r-, e.g. śra-: ஸ்ர & ஸ்ர
௪ & ௪	pre-consonantal -r-, e.g. darśana-:

உஸ்ர & உஸ்ர & உஸ்ர

(for further variants see list of conjuncts, s.v. r-)

௪௪ pre-consonantal -r- with gemination, e.g. dharmma-: ஸ்ரஸ்ர

௪ & ௪ & ௪ -l-, e.g. śla-: ஸ்ல & ஸ்ல



*Grantha Tamil: Consonant Clusters & Conjuncts*

kka	க க	கீ
kkha	க வ	கை
kca	க உ	கீ
kta	க த	கை
ktu	க த	கை
ktya	க த	கை
ktra	க த	கை
ktva	க த	கை
ktha	க த	கை
kna	க ந	கை
knya	க ந	கை
kma	க ம	கை
kya	க ய	கை
kra	க ர	கை
kla	க ல	கை

klu	க ல	(for kl)
kva	க வ	கை
kṣa	க ச	கை
kṣṇa	க ச	கை
kṣṇya	க ச	கை
kṣma	க ச	கை
kṣmya	க ச	கை
kṣya	க ச	கை
kṣra	க ச	கை
kṣla	க ச	கை
kṣva	க ச	கை
ksa	க ச	கை
khna	க ந	கை
khma	க ம	கை
khyā	க ய	கை

khra	க்ர	க்ர	
khla	க்ல	க்ல	
khva	க்வு	க்வு	
gga	க்	க்	
ggha	க்	க்	
gja	க்	க்	
gda	க்	க்	க்
gdha	க்	க்	க்
gdhra	க்	க்	
gna	க்	க்	
gnya	க்	க்	
gbha	க்	க்	க்
gbhya	க்	க்	
gma	க்	க்	க்
gya	க்	க்	க்

gra	க்	க்	
grya	க்	க்	
gla	க்	க்	
gva	க்	க்	க்
ghna	க்	க்	க்
ghma	க்	க்	
ghya	க்	க்	
ghra	க்	க்	
ghrya	க்	க்	
ghla	க்	க்	
ghva	க்	க்	
ṅka	க்	க்	
ṅkta	க்	க்	
ṅktva	க்	க்	



ñkya	ஞ்ய	
ñkra	ஞக்ய	
ñkṣa	ஞக்ஷ	
ñkṣya	ஞக்ஷ்ய	
ñga	ஞக	
ñma	ஞம	
ñla	ஞல	
cca	ஞஞ	
ccha	ஞஞ	ஞஞ (=cśa)
	ஞஞ	ஞஞ (=chśa)
cchra	ஞஞ	ஞஞ
cña	ஞஞ	ஞஞ
cma	ஞஞ	ஞஞ
cya	ஞஞ	ஞஞ
cra	ஞஞ	ஞஞ

chma	ஞஞ	ஞஞ
chya	ஞஞ	ஞஞ
chra	ஞஞ	ஞஞ
chrya	ஞஞ	ஞஞ
chla	ஞஞ	ஞஞ
chva	ஞஞ	ஞஞ
jjā	ஞஞ	ஞஞ
jjñā	ஞஞ	ஞஞ
jjha	ஞஞ	ஞஞ
jñā	ஞஞ	ஞஞ
jñya	ஞஞ	ஞஞ
jma	ஞஞ	ஞஞ
jya	ஞஞ	ஞஞ
jra	ஞஞ	ஞஞ
jla	ஞஞ	ஞஞ

jva ஜ வ்

jhra று று

ñca ஞ ஞ் ஞ் ஞ் ஞ்

ñcya ஞ் ஞ்

ñcha ஞ் ஞ்

ñja ஞ் ஞ்

ñjya ஞ் ஞ்

ṭṭa ட் ட்

ṭṭha ட் ட்

ṭya ட் ட்

ṭra ட் ட்

ṭhya ட் ட்

ṭhra ட் ட்

ṭhva ட் ட்

ḍga ட் ட்

ḍja ட் ட்

ḍḍa ட் ட்

ḍḍha ட் ட்

ḍbha ட் ட்

ḍma ட் ட்

ḍya ட் ட்

ḍra ட் ட்

ḍva ட் ட்

ḍhya ட் ட்

ḍhva ட் ட்



ṇṭa	ண	ண
ṇṭha	ண	ண
ṇḍa	ண	ண
ṇḍya	ண	ண
ṇḍra		ண
ṇḍha	ண	ண
ṇṇa	ண	ண
ṇṇya	ண	ண
ṇya	ண	
ṇra	ண	ண
ṇva	ண	ண
ṇha	ண	ண
ṇhya	ண	ண
ṇhva		ண

ṭka    ṭ    ṭ    ṭ

ṭkra	ṭ	ṭ
ṭkṣa	ṭ	
ṭkha	ṭ	ṭ
ṭta	ṭ	ṭ
ṭtya	ṭ	ṭ    ṭ    ṭ    ṭ
ṭtra	ṭ	ṭ    ṭ
ṭtva	ṭ	ṭ    ṭ
ṭtha	ṭ	ṭ    ṭ
ṭna	ṭ	ṭ
ṭnya	ṭ	ṭ    ṭ
ṭpa	ṭ	ṭ    ṭ    ṭ
ṭpra	ṭ	ṭ    ṭ
ṭpha	ṭ	ṭ    ṭ
ṭma	ṭ	ṭ
ṭmya	ṭ	ṭ
ṭya	ṭ	ṭ    ṭ

tye	தெ	செய
tra	த்ர	த்ர
trya	த்ரு	
tla	தல	சல
tva	தவ	சவ சா
tsa	தஸ	சஸ
tstha	தஸ்த	சஸ்த
tsna	தஸந	சஸந
tsnya	தஸந்	சஸந்
tsya	தஸ்ய	சஸ்ய
tsva	தஸவ	சஸவ
thma	தம்	தம்
thya	த்ய	த்ய
thra	த்ர	
thla	தல	தல

thva	தவ		
dga	த	த	த
dgra	த	த	
dgha	த	த	த
dda	த	த	த
ddya	த		
ddra	த		
ddha	த	த	த
ddhna	த		
ddhya	த	த	த
ddhra	த	த	
ddhva	த	த	
dna	த	த	த
dba	த	த	த
dbra	த	த	



dbha	உ வ்	ஊ	ஹ	ஹ
dbhya	உ வ்			
dbhra	உ வ்			
dma	உ ஃ	ஹ	ஹ	
dya	உ ய்	ய்		
dra	உ ய்	ஹ	ஹ	
dva	உ வ்	ஹ	ஹ	ஹ
dvya	உ வ்	ஹ		
dhna	ய் ந்	ய்ந்	(see ddhna)	
dhma	ய் ஃ	ய்		
dhya	ய் ய்	ய்		
dhra	ய் ய்	ய்	(see ddhra)	
dhla	ய் ய்	ய்		
dhva	ய் வ்		(see ddhva)	

nta	ந் த்	த்	த்	
ntya	ந் த்	த்	த்	
ntra	ந் த்	த்	த்	
ntva	ந் வ்	த்	த்	
ntsa	ந் த்	த்	த்	
ntha	ந் த்	த்	த்	
nda	ந் த்	த்	த்	
ndya	ந் த்	த்	த்	
ndra	ந் த்	த்	த்	
ndri	ந் த்	த்	த்	
ndva	ந் வ்	த்	த்	
ndha	ந் த்	த்	த்	
ndhya	ந் த்	த்	த்	
ndhra	ந் த்	த்	த்	
nna	ந் ந்	ந்	ந்	ந்
nbra	ந் ந்	ந்	ந்	ந்

nama	ந்	ந்	ந்	
nya	ந்	ந்	ந்	ந்
nra	ந்	ந்		
nla	ந்	ந்		
nva	ந்	ந்	ந்	ந்
nsa	ந்	ந்	ந்	
nsa	ந்	ந்		
nha	ந்	ந்		
pta	ந்	ந்		
ptu	ந்	ந்	ந்	ந்
ptva	ந்	ந்		
pna	ந்	ந்		
pnu	ந்	ந்		
ppa	ந்	ந்		
ppha	ந்	ந்		

pma	ந்	ந்
pya	ந்	ந்
pra	ந்	ந்
pla	ந்	ந்
pva	ந்	ந்
psa	ந்	ந்
pstha	ந்	ந்
psma	ந்	ந்
psya	ந்	ந்
psva	ந்	ந்
phna	ந்	ந்
phma	ந்	ந்
phya	ந்	ந்
phra	ந்	ந்
phla	ந்	ந்



bva      ബ      ബ

bhma      ബ      ബ      ബ

mva      8      20

mha	மா
yya	ய்ய
rk(k)a	கக
rg(g)a	கக
rgya	கக
rg(gh)a	கக
rghya	கக
rc(c)a	சச
rcya	சச
rj(j)a	ஜஜ
rju	ஜ
rn(n)a	நந
rt(t)a	தத

rttha see rtha

rt(t)ya	தத
rtra	த
r(t)tha	தத
rthya	தத
rd(d)a	தத
r(d)dha	தத
r(d)dhna	தத
r(d)dhva	தத
rp(p)a	தத
rba	தத
rbha	தத
rm(m)a	தத
ry(y)a	தத
rl(l)a	தத
rv(v)a	தத
rśa	தத



rśva	ரஸ்வ	
rṣa	ரஸ	ரஷ
rṣṇa	ரஸ்ஸ	ரஷ்ண
rha	ரஹ	
lka	லக்	லக்ஷ
lga	லக்ஷ	லக்ஷ
lgu	லக்ஷ	
lpa	லப	லப
lpi	லபி	
lpya	லபி	லபி
lba	லப	
lma	லம்	லம்
lya	லய	லய
lra	லர	லர
lla	லல	லல

lva	லவ	
vya	வ்ய	வ்ய
vra	வ்ர	
śca	ஸ்ச	ஸ்ச
ścha	ஸ்ச	ஸ்ச
śna	ஸந	ஸந
śma	ஸம்	ஸம்
śya	ஸ்ய	ஸ்ய
śra	ஸ்ர	ஸ்ர
śla	ஸல்	ஸல்
śva	ஸவ	ஸவ
śśa	ஸஸ	ஸஸ
ṣka	ஷக்	ஷக்

ṣkra	ṣkṛ	
ṣkha	ṣkḥa	ṣkḥa
ṣṭa	ṣṭa	ṣṭa
ṣṭya	ṣṭya	ṣṭya
ṣṭra	ṣṭra	ṣṭra
ṣṭva	ṣṭva	ṣṭva
ṣṭha	ṣṭha	ṣṭha
ṣṇa	ṣṇa	ṣṇa
ṣpa	ṣpa	ṣpa
ṣpra	ṣpra	ṣpra
ṣma	ṣma	ṣma
ṣya	ṣya	ṣya
ṣla	ṣla	ṣla
ṣva	ṣva	ṣva
ska	ska	ska

sta	sta	sta
sti	sti	sti
stu	stu	stu
stya	stya	stya
stra	stra	stra
stva	stva	stva
stha	stha	stha
sna	sna	sna
snyā	snyā	snyā
spa	spa	spa
spya	spya	spya
spha	spha	spha
sma	sma	sma
smi	smi	smi
smya	smya	smya
sya	sya	sya



sra	ஸ்ர	ஸ்ர
sla	ஸ்ல	ஸ்ல
sva	ஸ்வ	
ssa	ஸ்ஸ	
hpa	ஹ்ண	ஹ்ண
hna	ஹ்ந	ஹ்ந
hnya	ஹ்ந்	ஹ்ந்
hma	ஹ்ம	ஹ்ம
hya	ஹ்ய	ஹ்ய
hra	ஹ்ர	ஹ்ர
hla	ஹ்ல	ஹ்ல
hva	ஹ்வ	ஹ்வ

## Tamil

Vowels	Initial	Diacritic
a	அ & உ	
ā	ஆ & ஓ	ஶ & ஶ்
i	இ & ஐ & ஓ	ஶி & ஶி
ī	ஈ & ஊ	ஶீ & ஶீ
u	உ & ஊ	ஶு & ஶு & ஶு & ஶு *
ū	ஊ & ஊ	ஶூ & ஶூ & ஶூ & ஶூ *
e	எ & ஏ	ஶெ & ஶெ
ē	ஏ & ஏ	ஶே & ஶே
ai	ஐ	ஶை & ஶை & ஶை & ஶை
o	ஒ & ஓ	ஶொ & ஶொ *
ō	ஓ & ஓ	ஶோ & ஶோ *
au	ஓள & ஓள	ஶொள & ஶொள

\* and variants

## Consonants

Vowelless	-a	Vowelless	-a
k- க்	க	v- வ்	வ
ṅ- ங்	ங	ḷ- ழ	ழ
c- ச்	ச	ḷ- ள்	ள
ṇ- ண்	ஞ	r- ற்	ற
ṭ- ட்	ட	ṇ- ன்	ன
ṇ- ண்	ண	k- ஃ	
t- த்	த	( fa ஃப za ஃஜ )	
n- ந்	ந	<i>Grantha Characters:</i>	
p- ப்	ப	j- ஜ்	ஜ
m- ம்	ம	ṣ- வ்ஷ	ஷ
y- ய்	ய	s- வ்ஸ	ஸ
r- ர்	ர	h- வ்ஹ	ஹ
l- ல்	ல	kṣ- வ்க்ஷ	க்ஷ

-a / -ā

k- க & க	கா	l- ல	லா
ṅ- ங & ங & ங	ஙா	v- வ & வ	வா
c- ச & ச	சா	ḷ- ழ & ழ	ழா
ṇ- ண & ண	ஞா	ḷ- ள & ள	ளா
ṭ- ட	டா	r- ற & ற	றா
ṇ- ண	ணா	ṇ- ன	னா
t- த & த	தா		
n- ந & ந	நா	j- ஜ	ஜா
p- ப	பா	ṣ- வ்ஷ & வ்ஷ	ஷா
m- ம & ம	மா	s- வ்ஸ & வ்ஸ & வ்ஸ	ஸா
y- ய & ய & ய*	யா	h- வ்ஹ	ஹா
r- ர	ரா	kṣ- வ்க்ஷ	க்ஷா

\* To be distinguished from ழ ழா



-i / -ī

k- கி & கீ	கீ & கீ	l- லி & லீ
n- நி & நீ	நீ & நீ	v- வி & வீ
c- சி & சீ	சீ & சீ	l- பி & பீ
n- னி & நீ	நீ & நீ	l- னி & னீ
t- தி & தீ	தீ & தீ	r- ரி & ரீ
n- ணி & னீ	ணீ & னீ	n- னி & னீ
t- தி & தீ	தீ & தீ	
n- நி & நீ	நீ & நீ	j- ஜி & ஜீ
p- பி & பீ	பீ & பீ	ɕ- ஷி & ஷீ
m- மி & மீ	மீ & மீ	s- ஸி & ஸீ
y- யி & யீ	யீ & யீ	h- ஹி & ஹீ
r- ரி & ரீ	ரீ & ரீ	kɕ- ஷ்ஷி & ஷ்ஷீ

-u / -ū

k- கு	கூ	l- லு & லு	லூ & லூ
n- நு & நு	நூ & நூ	v- வு & வு	வூ & வூ
c- சு	சூ	l- மு & மு	மூ & மூ
n- னு & நு	நூ & நூ	l- னு & னு	னூ & னூ
t- து	தூ	r- ரு & ரு	ரூ & ரூ
n- ணு & ணு	ணூ & ணூ	n- னு & னு	னூ & னூ
t- து & து	தூ & தூ		
n- நு & நு	நூ & நூ	j- ஜு & ஜு	ஜூ & ஜூ
p- பு	பூ	ɕ- ஷு & ஷு	ஷூ & ஷூ
m- மு & மு	மூ & மூ	s- ஸு & ஸு	ஸூ & ஸூ
y- யு	யூ	h- ஹு & ஹு	ஹூ & ஹூ
r- ரு	ரூ	kɕ- ஷ்ஷு & ஷ்ஷு	ஷ்ஷூ & ஷ்ஷூ

-e/-ē

k-	கெ & கே	கே & கே	l-	லெ	லே
n-	நெ	நே	v-	வெ	வே
c-	செ	சே	l-	பெ	பே
n-	நெ	நே	l-	ளெ	ளே
t-	டெ	டே	r-	றெ	றே
n-	ணெ	ணே	n-	னெ	னே
t-	தெ	தே			
n-	நெ	நே	j-	ஜெ	ஜே
p-	பெ	பே	ṣ-	ஷெ	ஷே
m-	மெ	மே	s-	ஸெ	ஸே
y-	யெ	யே	h-	ஹெ	ஹே
r-	ரெ	ரே	kṣ-	க்செ	க்சே

-ai

k-	கை & கை	l-	லை & வலை & லை
n-	நை	v-	வை
c-	சை	l-	பை
n-	நை	l-	ளை & வளை & லை
t-	டை	r-	றை
n-	ணை & வணை & லணை	n-	னை & வனை & லனை
t-	தை		
n-	நை	j-	ஜை
p-	பை	ṣ-	ஷை
m-	மை	s-	ஸை
y-	யை	h-	ஹை
r-	ரை	kṣ-	க்சை



-o / -ō

k- கொ & கோ	கோ & கோ	l- லொ	லோ
ṇ- நொ	நோ	v- வொ	வோ
c- சொ	சோ	ḷ- டொ	டோ
ṅ- ஞொ	ஞோ	ḷ- னொ	னோ
ṭ- டொ	டோ	r- ரொ	ரோ
ṇ- ணொ	ணோ	ṇ- ணொ	ணோ
t- தொ	தோ		
n- நொ	நோ	j- ஜொ	ஜோ
p- பொ	போ	ṣ- ஷொ	ஷோ
m- மொ	மோ	s- ஸொ	ஸோ
y- யொ	யோ	h- ஹொ	ஹோ
r- ரொ	ரோ	kṣ- க்ஷொ	க்ஷோ

-au

k- கௌ & கௌ	l- லௌ
ṇ- நௌ	v- வௌ
c- சௌ	ḷ- டௌ
ṅ- ஞௌ	ḷ- னௌ
ṭ- டௌ	r- ரௌ
ṇ- ணௌ	ṇ- ணௌ
t- தௌ	
n- நௌ	j- ஜௌ
p- பௌ	ṣ- ஷௌ
m- மௌ	s- ஸௌ
y- யௌ	h- ஹௌ
r- ரௌ	kṣ- க்ஷௌ

## Abbreviations &amp; Contractions

௨ = om (cf. below)

௫ = க்கு until

சீ = சிரஞ்சீவி long-lived

ஸ்ரீ & ஸ்ரீ = சிரீ śrī

பு = பிள்ளை pillai, a title of rank

ம-ந-ந-ஸ்ரீ = மகாராஜ ராஜசிரீ mahārājārājāsīrī,  
abbr. "M. R. Ry."

மு = முதல் from the first

வ = வகையரா belonging to

ஷ = மேற்படி afore-mentioned

ஹ = முதலியவை "etc."

## - Accounting

அ = ஆக total

ந & ந = நட்டபர் number

ந = நிலுவை balance

பு = டோக what is spent

வ = வசட் charge

வ = வரவு receipts

## - Agriculture etc.

அ = அளட் salt pan

ஜ & ற = நெல்லு paddy

நு = நன்செய் wet cultivation

ந = நிலம் ground

பு = புன்செய் dry cultivation

## - Anglo-Indian Currency

க = காச a Cash

பு = பணம் a Fanam = 80 Cash

த = டெபான் ten Fanams

வ = வராகன் a Pagoda = 42 Fanams

ப = பைசா a Paisa or Pie

அ = அண்ணா an Anna



ரூ & ரூ = ரூபாய் a Rupee = 16 Annas

- Calendar

வரு = வருஷம் year

மீ = மாதம் month

உ & உ = தேதி date

நா = நாள்து current

- Weights & Measures

பா = பாரம் a Candy (an "Indian ton")

ம = குறுணி one Marcal (measure of capacity)

ஹ = பதக்கு two Marcals

த = ஐங்குறுணி five Marcals

வ = இருதாணி eight Marcals

க = கலம் a Kalam = 12 Marcals

கா = காணி a Cawney (measure of land)

கி = கெசம் a yard

சு = குழி a square yard

## Grantha Tamil: Numerals

### Cardinals

க உ ங & ங & ங ச ற க ள அ க ௦

&

உ ங ற க ள அ க

1 2 3 4 5 6 7 8 9 0

ய & ய & உ & க ௦ யக & கக ௦ யஉ & கஉ

10 11 12 etc.

உய & உ௦ உயக & உக உயஉ & உஉ

20 21 22 etc.

ஙய & ங௦

30 etc.

ந & ன & ன & ன & க ௦ ௦ நக & க௦க

100 101 etc.

நய & நக௦ & கக௦ நயக & ககக

110 111 etc.

நாஉய & கஉ௦	நாஉக & கஉக	
120	121	etc.
நாநுய & கநு௦		etc.
130		
உநா & உ௦௦	உநாக & உ௦க	
200	201	etc.
உநாய & உக௦	உநாயக & உகக	
210	211	etc.
உநாஉய & உஉ௦	உநாஉயக & உநாஉக & உஉக	
220	221	etc.
நுநா & நு௦௦		etc.
300		
சு & சு & சு & ச	சுக	சுஉ
1,000	1,001	1,002 etc.
சுய	சுகக	சுகஉ
1,010	1,011	1,012 etc.

சுஉய	சுஉக	சுஉஉ	
1,020	1,021	1,022	etc.
சுநா	சுநாக	சுநாஉ	
1,100	1,101	1,102	etc.
உசு			
2,000			
யசு	யகசு		
10,000	11,000		
நாசு			
100,000			
யநாசு			
1,000,000			
நாநாசு			
10,000,000			



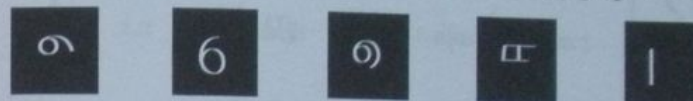
## Fractions

௭௭	௮	௯	௮ & ௮
$1/320$	$1/160 = 2/320$	$1/80 = 4/320$	$1/40 = 8/320$
௮௮	௮௮	௮	௮௮ & ௮௮
$1/32 = 8/320 + 2/320$	$3/80 = 8/320 + 4/320$	$1/20 = 16/320$	$1/16 = 16/320 + 4/320$
௮	௭௮ & ௭௮	௮௮	௮
$1/10 = 32/320$	$1/8 = 40/320$	$3/20 = 48/320$	$1/5 = 64/320$
௮	௮ & ௮	௮	
$1/4 = 80/320$	$1/2 = 160/320$	$3/4 = 240/320$	

## Grantha Tamil: Graphic Classification

The following list is an attempt to classify Grantha Tamil characters according to graphic criteria. It is intended for the single purpose of identifying a given character, without regard to phonetics and palæography.

The major obstacle in learning Grantha Tamil seems to be the bewildering variety of characters that look very similar, at least to the untrained eye. Starting from the characters' (supposed) origin to the upper left, I have tried to abstract from this variety a handful of recurring graphic elements:



These basic elements, along with two variants, are displayed in black boxes, while the framed boxes below them show their various derivations.

In the column to the right of a framed box,

- the first row classifies the basic character(s) built from the respective graphic element (or otherwise remains empty);
- the second row gives all conjuncts beginning with the graphic element in question. It should be noted here that only genuine conjuncts, i.e., *graphically connected* consonants, have been classified in this manner; clusters of graphically unconnected consonants should be looked up in the alphabetic list, starting from the basic character around which the cluster is constructed. Where the complete classification of all conjuncts originating from a particular consonant would have entailed unnecessary repetition the reader is referred to the alphabetic list for further details.
- The third row indicates graphically related characters.

Within these rows, conjuncts are arranged according to increasing complexity, as far as possible.

Tamil characters are marked with an asterisk (\*), numerals with a number sign (#). Unclassified characters are listed at the end.

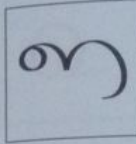
In order to look up an unknown character encountered in a manuscript or print, the reader should first identify the graphic element at its (supposed) origin to the upper left according to the basic classification given above.



1.1  $\text{na}$  i  $\text{na}$  &  $\text{na}$   $\text{na}$  ja  $\text{na}$  ai\*1.2  $\text{na}$  rja  $\text{na}$  n  $\text{na}$  rja

(cf. 2.2)

 $\text{na}$  jja  $\text{na}$  jjna $\text{na}$  &  $\text{na}$  &  $\text{na}$  & ( $\text{na}$ ) jna $\text{na}$  jma  $\text{na}$  jla  $\text{na}$  jva  $\text{na}$  jya $\text{na}$  jra  $\text{na}$  jjha $\text{na}$  mma  $\text{na}$  r(m)ma  $\text{na}$  mmya1.3  $\text{na}$  mpa



(cf. 1.1-)

2.1

2.2  $\text{nda}$   $\text{nda}$  ndva $\text{nda}$  ndya ( $\text{nda}$  ndra ( $\text{nda}$  ndri2.3  $\text{nda}$  nca  $\text{nda}$  ncha  $\text{nda}$  ncya

2.4  $\text{na}$  na

2.5

2.6  $\text{na}$  nja  $\text{na}$  njya

2.7  $\text{nta}$  na2.8  $\text{nta}$  nca $\text{nta}$  nta  $\text{nta}$  ntya  $\text{nta}$  ntra  $\text{nta}$  ntva  
 $\text{nta}$  ntsa



2.9

2.10 ஈ nka ஈய nkyā ஈர nkra

ஈக nhta ஈகா nktva ஈகா nksa

ஈகா nksya

2.11

2.12 ஏ nca

(cf. 4.2)

ஏ nna ஏ &amp; ஏ nca

(cf. 4.4)

2.13 ஏ e\* ஏ #7 ஏ ē\* ஏ nā\*

6

3.1 ல &amp; ல la

3.2

(cf. 4.1)

3.3 ஓ om ஓ va ஓ pa ஓ gha

3.4 ஓ vu\* ஓ vū\*

(cf. 4.9)

ஓ v ஓ p ஓ rva ஓ rpa

ஓ pta ஓ &amp; ஓ ptu

ஓ pna ஓ pne ஓ pma

ஓ &amp; ஓ rva

ஓ' &amp; ஓ rgh(gh)a ஓ ghma

ஓ pya ஓ vya

ஓ lai\* ஓ lai\* ஓ nai\*

(cf. 3.12)

3.5 ஓ kha ஓ khna ஓ khma

ஓ khya ஓ khra ஓ khla

ஓ khva

ஹ

3.6 ஹ pha ஹ & ஹ ha ஹ hu  
ஹ sa ஹ e

3.7 ஹ phna ஹ phma ஹ phva  
(cf. s- and h-conjuncts)

ஷ

3.8 ஷ sa

3.9 ஷ rša (cf. ṣ-conjuncts)

ஹ

3.10 ஹ & ஹ -ai\* ஹ na\* ஹ na

3.11 ஹ & ஹ nā\* ஹ nu\* ஹ nū\*  
ஹ nā\*

ஹ n ra

ஹ nta ஹ ntha

ஹ nā\* ஹ nu\* ஹ nū\*

ஹ nna ஹ nnya

ஹ & ஹ rṇa

ஹ na ஹ na ṇa ṇa

ஹ na

ஹ na

ஹ na ṇa

ஹ na

ஹ

3.12 ஹ kha

3.13 ஹ khna ஹ khma ஹ khva

(cf. 3.5)

ஹ

3.14 ஹ & ஹ o ஹ o\* ஹ o\*

3.15 ஹ au ஹ au\*

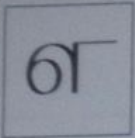
3.16 ஹ o\* ஹ o\*





4.1 ெ -e ெெ -ai

(cf. -o and -au)



4.2 ெ #7 ெ -au ெ la\* ெ !

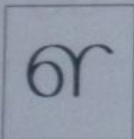
4.3 ெ lu\* ெ lu\* ெ &amp; ெ nna

(cf. 2.11-2.13)

4.4 ெ e\* ெ ē\* ெ ña\* ெ ñu\*

ெ ñū\*

4.5 ெ la\* (cf. au\*)



4.6 ெ ba ெ b

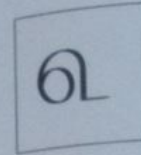
4.7 ெ ndha ெ nthā

ெ bdha ெ bdhva

ெ bma ெ bja ெ bda

ெ bla ெ bva

4.8 ெ &amp; ெ la

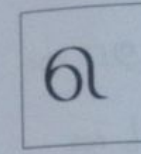


4.9 ெ bha ெ bhu

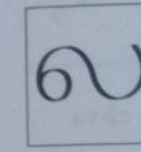
(cf. 3.3)

4.10 ெ bhna ெ bhya ெ bhra

ெ bhma ெ bhla ெ bhva









4.11 ெ bha (cf. 4.9)












4.12 ெ &amp; ெ -la (in conjuncts) ெ la\*



ெ lu\* ெ lū\*









5.1     &  ca     &  #8     &  a\*




 &  ā\*     sa\*     &  cha

5.2     rca     &  c     rca




 cya     cma






 &  cā





 chya     chla     chva




5.3     &  &  i\*








5.4     &  ma     m




 ḍa     ḍ     &  ḍha     ḍ




5.5     &  mna     mya     mra


 mla     lai\*     mpa

 mva     mha     lai\*






 nai\*     nai\*



 ḍga     ḍva     ḍbha



 ḍja     ḍḍa     ḍḍha




 ḍma








5.6     u     #2     &  &  ū





 &  da




5.7     dra     rda




 dna     dga     dgra

 dggha     dgha

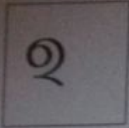
 dra     dya     d

5.8     u\*     #2\*     va\*     ū\*

 sa\*     ṣa\*     lai\*

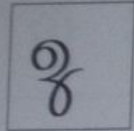
 lai\*     nai\*     nai\*





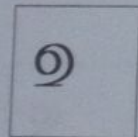
5.9

5.10 உ் dva உ் dma உ் dda



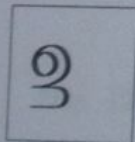
5.11

5.12 ஊ dna ஊய dgha ஊய dba  
 ஊ dbha ஊவ dva ஊய dba  
 ஊ dbha ஊ ddha ஊய ddhna  
 ஊ<sup>1</sup> r(d)dhna ஊய ddhva  
 ஊ<sup>1</sup> r(d)dhva ஊய ddhra



5.13

5.14 ஓ ddha

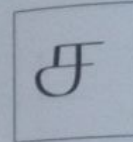


5.15

5.16 ஔ dva ஔ dga



The distinctly square design of this basic element is more typical of prints than of manuscripts, where the corners appear much rounder.



6.1 ச ca\* ச #4 ச cu\* ச #6

ச #1 சு tu சு kū\* சு &amp; சு #9

ச a சு ā த ta த ta\* த #1,000

சு ku\* து tu\* து tū\*

6.2 ச t த- rta ச rtra

சு tka சு tta சு tya

சு r(t)tya சு ttva

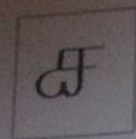
சு &amp; சு ttha சு tva சு tpa

சு tla சு tva சு tpa

சு tpha சு tsa

சு tya சு tma சு &amp; சு 1,000

சு tna சு &amp; சு tnya



6.3 கா ka

6.4 க k கா-ல் rka

கா-து kta கா-து ktva கா-து kka

கா-நா kna கா-நி knya

கா-லா kla கா-லா kva கா-லா ktha

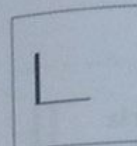
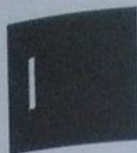
கா-லா ksa

கா-லா kṣa கா-லா kṣla கா-லா kṣma

கா-லா kṣva

கா-லா kma கா-லா kya

கா-லா kkha கா-லா kca



7.1 த ta\* த &amp; த ta த t

ப pa\* ப pu\* ப pū\*

ம &amp; ம ma\* மு mu\* மு mū\*

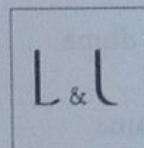
ல &amp; ல la\* ல &amp; ல lu\*

ல &amp; ல lū\*

(cf. 7.10)

7.2 த-த &amp; த-த தா த ta\* த &amp; த தா

7.3 த tu\* த tū\*



7.4 க &amp; க ga

7.5 க g க-ல் rga க &amp; க gya

க &amp; க க gi க-ல் &amp; க-ல் ggha

க-ல் gbha க-ல் gbhya க-ல் gu

க-ல் gva க-ல் gga க-ல் &amp; க-ல் gdha



ഗ് gma ഗ്ല gla ഗ്ഗ gma ഗ്ഗ് gda  
 ഗ്ന gna ഗ്ന് gnya

U

7.6 ഗാ śa ഗു śa

7.7 ഗാ rśa ഗർ ś ഗർ rśa ഗു-ർ rśa

ഗു- śu ഗു) śya ഗു- śla

ഗു- śva ഗു- śu ഗു- śra

ഗു- śna ഗു- śca ഗു- ścha

U&U

7.8 യ ya യ dha യ #10 യ tha

7.9 യ y യ- rya യ) yya യ) ryya

യ- rdha യ- dhla യ- dhma

യ- rtha യ- thla യ- thma

യ) thya

(cf. 7-2) 7.10 യ & യ & യ ya\* യ #10 യ ya\* യ yū

┐

7.11 ന് #3 ന് jha ന് ra ന് r oṇ i ന് i\*

7.12

(cf. 7.14)

7.13 ന് jha

᳚

7.14 ᳚ -ā ᳚ ra\* ᳚ & ᳚ i\* ᳚ & ᳚ na

7.15 ᳚ ᳚\* ᳚ nda ᳚ nva ᳚ ᳚\*

᳚ ᳚\* ᳚ #3 ᳚ nu ᳚ & ᳚ nva

᳚) nya ᳚ n ᳚ nu\* ᳚ nū\*

᳚ nma ᳚ nśa ᳚ nla ᳚ nma

᳚) nya ᳚ ndha ᳚ nra ᳚ nna

᳚ nsa ᳚ nha

᳚ ru\* ᳚ rū\* ᳚ #5

*"Unclassified" Characters*

ꣳ	ṛ
ꣴ	la
ꣵ & ꣶ	ra*
ꣷ	#100
꣸	-e*
꣹	-ē*
꣺ & ꣻ	ṭha
꣼	-ṁ ( <i>anusvāra</i> )
ꣽ	-ḥ ( <i>jihvāmūlīya</i> )
ꣾ	-ḥ ( <i>upadhmānīya</i> )
ꣿ & 𑌀 & 𑌁 & 𑌂	<i>visarga</i>
𑌃 & 𑌄	<i>avagraha</i>
𑌅	<i>pluti</i>

Furthermore, Tamil fractions and abbreviations have not been classified.

*Grantha Malayalam: Basic Characters & Ligatures*

Vowels	Initial	Diacritic
a	ꣳ & ꣴ	
ā	ꣳ & ꣴ	꣺ & ꣻ & ꣼
i	ꣵ	꣺ & ꣻ
ī	ꣵ & ꣶ	꣺ & ꣻ
u	ꣷ & ꣸	꣺ & ꣻ & ꣼ & ꣽ
ū	ꣷ	꣺ & ꣻ & ꣼ & ꣽ
ṛ	ꣳ	꣺ & ꣻ & ꣼
ṝ	ꣳ & ꣴ	꣺ & ꣻ
ḷ	ꣵ	꣺
ḹ	ꣵ	꣺
e/ē	ꣷ & ꣸	꣺ & ꣻ
ai	ꣷ & ꣸	꣺ & ꣻ
o/ō	ꣷ & ꣸	꣺ & ꣻ
au	ꣷ	꣺ & ꣻ



*Consonants: Velar*

ka	ക
kha	ഖ
ga	ഗ
gha	ഘ
ṅa	ങ

*Retroflex*

ṭa	ട
ṭha	ഠ
ḍa	ഡ
ḍha	ഢ
ṇa	ണ & ണ

*Palatal*

ca	ച
cha	ഛ
ja	ജ
jha	ഝ
ña	ഞ

*Dental*

ta	ത & ഥ
tha	ഥ
da	ദ & ള
dha	ഢ
na	ന

*Labial*

pa	പ
pha	ഫ
ba	ബ
bha	ഭ & ൞
ma	മ

*Sibilants*

śa	ശ
ṣa	ഷ & റ്റ
sa	സ

*Other**Sonorants (conjuncts p. 99)*

ya	യ & ള്
ra	ര
la	ല
va	വ

ha	ഹ
ḷa	ള & ഴ
ḷa	ഴ
ra	റ
[ṇa	ണ]

-a / -ā

k-	ക	കാ	kh-	ഖ	ഖാ
g-	ഗ	ഗാ	gh-	ഘ	ഘാ
ṅ-	ങ	ഞാ			
c-	ച	ചാ	ch-	ഛ	ഛാ
j-	ജ	ജാ	jh-	ജ്ഞ	ജ്ഞാ
ñ-	ഞ	ഞാ			
ṭ-	ട	ടാ	ṭh-	ഠ	ഠാ
ḍ-	ഡ	ഡാ	ḍh-	ഢ	ഢാ
ṇ-	ണ & ണ	ണാ			
t-	ത & ട	താ	th-	ഥ	ഥാ
d-	ദ & ള	ദാ	dh-	ധ	ധാ
n-	ന	നാ			

-a / -ā

p-	പ	പാ	ph-	ഫ	ഫാ
b-	ബ	ബാ	bh-	ഭ & ഛ	ഭാ
m-	മ	മാ			
y-	യ	യാ			
r-	ര	രാ			
l-	ല	ലാ			
v-	വ	വാ			
ś-	ശ	ശാ			
ṣ-	ഷ & ഷ	ഷാ			
s-	സ	സാ			
h-	ഹ	ഹാ	ḥ-	ഃ	ഃ
ṛ-	ഠ	ഠാ	r-	റ	റാ



-i/-ī

k-	കി	കീ	kh-	ഖി	ഖീ
g-	ഗി	ഗീ	gh-	ഘി	ഘീ
ṅ-	ങി	ങീ			
c-	ചി	ചീ	ch-	ഛി	ഛീ
j-	ജി	ജീ	jh-	ജി	ജീ
ñ-	ണി	ണീ			
ṭ-	ടി	ടീ	ṭh-	ഠി	ഠീ
ḍ-	ഡി	ഡീ	ḍh-	ഢി	ഢീ
ṇ-	ണി	ണീ			
t-	തി	തീ	th-	ഥി	ഥീ
d-	ദി	ദീ	dh-	ധി	ധീ
n-	നി	നീ			

-i/-ī

p-	പി	പീ	ph-	ഫി	ഫീ
b-	ബി	ബീ	bh-	ഭി	ഭീ
m-	മി	മീ			
y-	യി	യീ			
r-	രി	രീ			
l-	ലി	ലീ			
v-	വി	വീ			
ś-	ശി	ശീ			
ṣ-	ഷി	ഷീ			
s-	സി	സീ			
h-	ഹി	ഹീ	ḷ-	ഴി	ഴീ
ḷ-	ളി	ളീ	r-	റി	രീ

-u / -ū

k-	ക	ക & ക്ര	kh-	ഖ	ഖ
g-	ഗ	ഗ & ഗ്ര	gh-	ഘ	ഘ
ṅ-	ങ	ങ			
c-	ച	ച	ch-	ഛ	ഛ
j-	ജ	ജ	jh-	ജ്ഞ	ജ്ഞ
ñ-	ഞ	ഞ			
t-	ട	ട	th-	ഠ	ഠ
ḍ-	ഡ	ഡ	dh-	ഢ	ഢ
ṇ-	ണ	ണ			
t-	ത	ത & ത്ര	th-	ഠ	ഠ
d-	ദ	ദ	dh-	ധ	ധ
n-	ന	ന			

-u / -ū

p-	പ	പ	ph-	ഫ	ഫ
b-	ബ	ബ	bh-	ഭ	ഭ & ഭ്ര
m-	മ	മ			
y-	യ	യ			
r-	ര	ര & ര്ര			
l-	ല	ല			
v-	വ	വ			
ś-	ശ	ശ & ശ്ര			
ṣ-	ഷ	ഷ			
s-	സ	സ			
h-	ഹ	ഹ	l-	ഃ	ഃ
l-	ഌ	ഌ	r-	ഠ	ഠ

-u/-ū alternatively  
with ് resp. ൃ:

k-	കു	കൂ
kh-	ഖു	ഖൂ
g-	ഗു	ഗൂ
gh-	ഘു	ഘൂ
ṅ-	ങു	ങൂ
... etc.		



-ṛ / -ṝ

k-	കൃ & ക്ര	കൃ	kh-	ഖൃ	ഖൃ
g-	ഗൃ	ഗൃ	gh-	ഘൃ	ഘൃ
ñ-	ഞൃ	ഞൃ			
c-	ചൃ	ചൃ	ch-	ഛൃ	ഛൃ
j-	ജൃ	ജൃ	jh-	ജൃ	ജൃ
ñ-	ഞൃ	ഞൃ			

... etc.

-ṛ / -ṝ alternatively  
with ് resp. ്:

k-	കൃ	കൃ
kh-	ഖൃ	ഖൃ
g-	ഗൃ	ഗൃ
gh-	ഘൃ	ഘൃ
ñ-	ഞൃ	ഞൃ

... etc.

-ḷ / -ḹ

k- കൃ      കൃ      ... etc.

-e / -ai

k-	കെ	കൈ	kh-	ഖെ	ഖൈ
g-	ഗെ	ഗൈ	gh-	ഘെ	ഘൈ
ñ-	ങെ	ങൈ			
c-	ചെ	ചൈ	ch-	ഛെ	ഛൈ
j-	ജെ	ജൈ	jh-	ഝെ	ഝൈ
ñ-	ഞെ	ഞൈ			
ṭ-	ടെ	ടൈ	ṭh-	ഢെ	ഢൈ
ḍ-	ഡെ	ഡൈ	ḍh-	ഢെ	ഢൈ
ṇ-	ണെ	ണൈ			
t-	തെ	തൈ	th-	തെ	തൈ
d-	ദെ	ദൈ	dh-	ധെ	ധൈ
n-	നെ	നൈ			

-e / -ai

p-	പെ	പൈ	ph-	പെ	പൈ
b-	ബെ	ബൈ	bh-	ഭെ	ഭൈ
m-	മെ	മൈ			
y-	യെ	യൈ			
r-	രെ	രൈ			
l-	ലെ	ലൈ			
v-	വെ	വൈ			
ś-	ശെ	ശൈ			
ṣ-	ശെ	ശൈ			
s-	സെ	സൈ			
h-	ഹെ	ഹൈ	ḷ-	ഌ	ഡൈ
ḷ-	ഌ	ഡൈ	ṛ-	ഠെ	ഠൈ

alternatively:

kē കേ      khē ഖേ  
gē ഗേ      ghē ഘേ  
ñē ണേ  
... etc.



-o / -au

k-	കൊ	കെര	kh-	ഖൊ	ഖെര
g-	ഗൊ	ഗെര	gh-	ഘൊ	ഘെര
ñ-	ഞൊ	ഞെര			
c-	ചൊ	ചെര	ch-	ഛൊ	ഛെര
j-	ജൊ	ജെര	jh-	ഝൊ	ഝെര
ñ-	ഞൊ	ഞെര			
t-	ടൊ	ടെര	th-	ഠൊ	ഠെര
ḍ-	ഡൊ	ഡെര	ḍh-	ഢൊ	ഢെര
ṇ-	ണൊ	ണെര			
t-	തൊ	തെര	th-	ഥൊ	ഥെര
d-	ദൊ	ദെര	dh-	ധൊ	ധെര
n-	നൊ	നെര			

-o / -au

p-	പൊ	പെര	ph-	ഫൊ	ഫെര
b-	ബൊ	ബെര	bh-	ഭൊ	ഭെര
m-	മൊ	മെര			
y-	യൊ	യെര			
r-	രൊ	രെര			
l-	ലൊ	ലെര			
v-	വൊ	വെര			
ś-	ശൊ	ശെര			
ṣ-	ഷൊ	ഷെര			
s-	സൊ	സെര			
h-	ഹൊ	ഹെര	l-	ഌ	ഌര
ḷ-	ഌ	ഌര	r-	റൊ	റെര

alternatively:

kō കോ khō ഖോ  
gō ഗോ ghō ഘോ  
... etc.

-au alternatively

without ഐ:

kau കിര  
khau ഖിര ... etc.

## Prepositional Consonants

k	ക & ക്ക & ക്ക	r	ര & ര
ṇ	ൺ & ണ്	l	ൽ & ര്
t	ത & ത്ത & ത്ത	!	∞ & ശ
n	ൻ & ന്	!	ഴ്
m	മ		

## Additional Graphs

o	-ṁ (anustāra)
ḥ	-ḥ (visarga)
ḥ	-ḥ (upadhmāñya)
∫ & f	avagraha (only in prints; avagraha not documented in mss.!)
□	virāma
𑌕	gemination mark, e.g. cca 𑌕 rva 𑌕
om	om
𑌕	"repeat preceding word/phrase" (esp. in drama mss.)

## Conjunct Forms of Sonorants

𑌕	-y-, e.g. śya-: 𑌕 śya-: 𑌕
𑌕 & 𑌕	post-consonantal -r-, e.g. pra-: 𑌕 & 𑌕
𑌕 & 𑌕	pre-consonantal -r-, e.g. karṣa-: 𑌕 & 𑌕 (for further variants see list of conjuncts, s.v. r-)
𑌕	-l-, e.g. śla-: 𑌕
𑌕	-v-, e.g. śva-: 𑌕

## Numerals

𑌕	𑌕	𑌕	𑌕	𑌕	𑌕	𑌕	𑌕	𑌕	𑌕
1	2	3	4	5	6	7	8	9	0
𑌕 & 𑌕	𑌕	𑌕							
10	100	1,000							

(Grantha Malayalam numerals are handled analogous to Grantha Tamil; cf. pp. 55ff.)



## Letter Numerals

ന	ന	ശൃ	ശൃ	ശൃ	ഹാ	ഗ്ര	പ്ര	ദ്രെ
na	nna	nya	škra	jhra	hā	gra	pra	dre
1	2	3	4	5	6	7	8	9

മ	ഥ	ല	പ്ത	ബ	ത്ര	രൂ	ച	ണ
ma	tha	la	pta	ba	tra	rū	cha	ṇa
10	20	30	40	50	60	70	80	90

൯൦

ṇa

100

## Fractions

I	II	III
¼	½	¾

## Grantha Malayalam: Consonant Clusters &amp; Conjuncts

kka കിറ കിറ

kku കിറ kkū കിറ കിറ കിറ

kkra കിറ

kkha കിറ കിറ

kca കിറ കിറ kcē കിറ കിറ

kta കിറ ktu കിറ ktū കിറ ktr കിറ

ktya കിറ

ktra കിറ

ktrya കിറ

ktva കിറ കിറ

k(t)tha കിറ കിറ കിറ

kna കിറ knu കിറ knū കിറ

knya കിറ

kma കിറ

kya കിറ

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kra	ക്ര	ക്രി
kla	ക്ല	ക്ലി
kva	ക്വ	
kṣa	ക്ഷ	ക്ഷി
kṣa	ക്ഷ	ക്ഷി
kṣya	ക്ഷ്യ	
kṣma	ക്ഷ്മ	
kṣmya	ക്ഷ്മ്യ	
kyā	ക്യാ	
kṣra	ക്ഷ്ര	
kṣva	ക്ഷ്വ	
ksa	ക്ഷ	ക്ഷി
khna	ഖ്ന	
khma	ഖ്മ	
khya	ഖ്യ	

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khra	ഖ്ര	ഖ്രി
khla	ഖ്ല	
khva	ഖ്വ	
gga	ഗ്ഗ	ഗ്ഗ ( =kga )
gha	ഗ്ഘ	ഗ്ഘ
gja	ഗ്ജ	
gda	ഗ്ദ	
g(d)dha	ഗ്ധ	ഗ്ധ
g(d)dhra	ഗ്ധ്ര	ഗ്ധ്ര
g(d)dhva	ഗ്ധ്വ	
gna	ഗ്ന	ഗ്ന
gnyā	ഗ്ന്യാ	
gbha	ഗ്ഭ	
gbhya	ഗ്ഭ്യ	
gma	ഗ്മ	ഗ്മ



gya	ഗ്യാ		
gra	ഗ്രാ	ഗ	ഗ്ര
grya	ഗ്ര്യാ		
gla	ഗ്ലാ	glu	ഗ്ലൂ
gva	ഗ്വാ	ഗ	ഗ്വ
ghna	ഘ്ന	ghnu	ഘ്നു
ghma	ഘ്മ		
ghya	ഘ്യ		
ghra	ഘ്രാ	ഘ	ഘ്ര
ghrya	ഘ്ര്യാ		
ghla	ഘ്ല		
ghva	ഘ്വാ		

In consonant clusters *ñ*- is usually represented by anusvāra.

ñka	ങ്ക്	ങ്ക	ñku	ങ്കു	ñkū	ങ്കൂ
-----	------	-----	-----	------	-----	------

ñkta	ങ്ക്ത	ത
ñktva	ങ്ക്തവ	വ
ñkya	ങ്ക്യ	യ
ñkra	ങ്ക്ര	ര
ñkṣa	ങ്ക്ക്ഷ	ക്ഷ
ñkṣē	ങ്ക്ക്ഷേ	ക്ഷേ
ñkṣya	ങ്ക്ക്ഷ്യ	ക്ഷ്യ
ñkha	ങ്ക്ഖ	
ñgha	ങ്ങ്ഖ	
ñña	ങ്ങ്	ങ്ങ
ñma	ങ്്മ	
ñla	ങ്ല്	

cca	ഛ	ഛ	ച
ccha	ഛഛ	ഛ ( = cśa )	ഛഛ ( = chśa )
cchra	ഛഛ	ഛ ( = cśra )	

cña	ച്ഞ	ഞ
cma	ച്മ	
cya	ച്യ	
cra	ച്ര	ഛ
chma	ച്മ	ഛ്മ (=cśma; ch-alternatives accordingly)
chya	ച്യ	
chra	ച്ര	ഛ്ര
chrya	ഛ്ര്യ	
chla	ഛ്ല	
chva	ഛവ	
jjā	ജ്ജ	ജ്ജ
jjña	ജ്ഞ	
jjya	ജ്ഞ്യ	
jjha	ജ്ഞ	ജ്ഞ
jña	ജ്ഞ	

jña	ജ്ഞ	
jma	ജ്മ	
jya	ജ്യ	ജ്യ
jra	ജ്ര	ജ്ര
jla	ജ്ല	
jva	ജവ	
jhya	ജ്യ	
jhra	ജ്ര	ജ്ര
ñca	ഞ്ച	
ñcya	ഞ്ച്യ	
ñcha	ഞ്ച	ഞ്ച (=ñcśa)
ñja	ഞ്ജ	ഞ്ജ
ñjya	ഞ്ജ്യ	ഞ്ജ്യ
ñña	ഞ്ഞ	



ñya

ഞ

ṭṭa

ട്

ṭṭi

ടി

ṭṭha

ട്ത

ട

ṭya

ട്യ

ട

ṭra

ട്ര

ട്ര

ṭhya

ട്യ

ṭhra

ട്ര

ട്ര

ṭhva

ട്ര

ḍga

ഡ്ഗ

ഡ

ḍja

ഡ്ജ

ḍḍa

ഡ്ഡ

ഡ

ḍḍha

ഡ്ഢ

ഡ

ḍbha

ഡ്ഭ

ḍma

ഡ്മ

ഡ

ḍya

ഡ്യ

ḍra

ഡ്ര

ഡ്ര

ḍva

ഡവ

ḍhya

ഡ്യ

ḍhra

ഡ്ര

ഡ്ര

ḍhva

ഡവ

ṇṭa

ണ്ട

ണ്

ണ്ട

ṇṭra

ണ്ട്ര

ṇṭha

ണ്

ൺ

ṇḍa

ണ്ഡ

ṇḍya

ണ്ഡ്യ

ṇḍra

ണ്ഡ്ര

ṇḍha

ണ്ഡവ

ṇṇa	ണ്ണ്		
ṇṇya	ണ്ണ്യ		
ṇma	ണ്മ		
ṇya	ണ്യ		
ṇra	ണ്ര	ണ്	
ṇva	ണ്വ		
ṇha	ണ്ഹ		
ṇhya	ണ്ഹ്യ		
ṇhva	ണ്ഹ്വ		
tkā	തക		
tkra	തക്ര		
tkṣa	തക്ഷ		
tkha	തഖ		
tta	തത		
ttu	തതു	ttū	തതു
		ttṛ	തതു

ttya	തത്യ		
ttra	തത്ര	തത്ര	തത്ര
ttva	തത്വ		
ttha	തഥ		
tna	തന		
tnya	തന്യ		
tpa	തപ	തപ	തപ
tpra	തപ്ര		
tpha	തഫ	തഫ	തഫ
tbha	see dbha		
tma	തമ		
tmya	തമ്യ		
tya	ത്യ		
tra	തര	തര	തര
trya	തര്യ		
tla	തല		



tva	ത്വ	
tsa	ത്സ	
tstha	ത്സഥ	ത്സഥ
tsna	ത്സൻ	ത്സൻ
tsnya	ത്സന്യ	tsnyē ത്സന്യേ
tsya	ത്സ്യ	
tsra	ത്സ്ര	
tsva	ത്സവ	
thma	ഥ്മ	ഥ
thya	ഥ്യ	
thra	ഥ്ര	ഥ്ര
thla	ഥ്ല	
thva	ഥവ	

(d-conjuncts are frequently built with ത് = -t)

dga	ദ്ഗ	ത്ഗ	
dgra	ദ്ഗ്ര	ത്ഗ്ര	
dgha	ദ്ഘ	ത്ഘ	ദ്വ
dda	ദ്ദ		
ddya	ദ്ദ്യ	ത്ദ്യ	
ddra	ദ്ദ്ര	ത്ദ്ര	
ddha	ദ്ധ		
ddhna	ദ്ധൻ	ദ്ധൻ	ddhnu ദ്ധൻ
ddhya	ദ്ദ്യ		
ddhra	ദ്ദ്യ		
ddhva	ദ്ധവ		
dna	ദ്ന	ദ്	
dba	ദ്ബ	ത്ബ	
dbra	ദ്ബ്ര	ത്ബ്ര	
dbha	ദ്ഭ	ത്ഭ	ത്ഭ

dbhu	തൂ	dbhū	തൂ	dbhr	തൂ
dbhya	ഭൂ	ഭൂ	ഭൂ		
dbhra	ഭൂ	ഭൂ	ഭൂ		
dma	ഭ്മ	ഭ	ഭമ		
dya	ദ്യ				
dra	ദ്ര	ദ്ര			
dva	ദ്വ				
dvyā	ദ്വ്യാ				
dhna	ധ്ന	ധ്ന	ധ്ന	(see ddhna)	
dhma	ധ്മ	ധ്മ			
dhya	ദ്യ				
dhra	ദ്ര	ദ്ര		(see ddhra)	
dhla	ഡ്ല				
dhva	ഡ്വ			(see ddhva)	

nta	ന്ത	ntu	ന്തു	ntū	ന്തു	ന്തു
ntya	ന്ത്യ					
ntra	ന്ത്ര		ntri	ന്ത്രി		
ntrya	ന്ത്ര്യാ					
ntva	ന്ത്വ	ന്ത്വ				
ntsa	ന്ത്സ					
ntha	ന്ഥ					
nda	ന്ദ					
ndya	ന്ദ്യ					
ndra	ന്ദ്ര	ന്ദ്ര		ndri	ന്ദ്രി	
ndva	ന്ദ്വ					
ndha	ന്ധ					
ndhya	ന്ദ്യ					
ndhra	ന്ദ്വ	ന്ദ്വ				
nna	ന്ന					
nbra	ന്ബ്ര					



nma ന  
 nya ന്യ  
 nra ന്ര നര ന  
 nla നല  
 nva നവ  
 nśa നശ  
 nsa നസ  
 nha നഹ

pta പ്ത പത ptu പ്തു പതു  
 ptya പ്ത്യ  
 ptva പ്ത്വ പതു  
 pna പ്ന പന pne പ്നു പനു  
 ppa പ്പ  
 ppha പ്ഫ  
 pma പ്മ

pya പ്യ  
 pra പ്ര പ്രി  
 pla പ്ല പ്ല (=p|a)  
 pva പ്വ പവ  
 psa പ്സ  
 pstha പ്തഥ  
 psma പ്സ്മ  
 psya പ്സ്യ  
 psva പ്സവ  
 phna ഫ്ന  
 phma ഫ്മ  
 phya ഫ്യ  
 phra ഫ്ര ഫ്ര  
 phla ഫ്ല  
 phva ഫ്വ

bja	ബ്ജ	ബ്ജ
bda	ബ്ദ	
bdha	ബ്ധ	ബ്ധ
bdhva	ബ്ധ്വ	ബ്ധ്വ
bba	ബ്ബ	ബ്ബ
bbha	ബ്ബ്	
bma	ബ്മ	
bya	ബ്യ	
bra	ബ്ര	ബ്ര
bla	ബ്ല	ബ്ല
bva	ബ്വ	ബ്വ
bhna	ഭ്ന	
bhma	ഭ്മ	
bhya	ഭ്യ	
bhra	ഭ്ര	ഭ്ര

bhla	ഭ്ല	ഭ്ല
bhva	ഭ്വ	
mna	മ്ന	
mpa	മ്പ	മ്പ (contraction of ന്പ "npa")
mpa	മ്പ	
mpa	മ്പ	
mba	മ്ബ	
mbha	മ്ബ്	
mma	മ്മ	മ്മ
mya	മ്യ	
mra	മ്ര	മ്ര
mla	മ്ല	
mva	മ്വ	
mha	മ്ഹ	
yya	യ്യ	യ്യ



rk(k)a രക ക്ക ക്ക

rg(g)a രഗ ഗ്ഗ

rg(g)ya രഗ്യ ഗ്ഗ്യ

r(g)gha റ്റ ഗ്ഗ

r(g)ghya റ്റ്യ ഗ്ഗ്യ

rc(c)a റ്റ റ്റ ത്ത

rc(c)ya റ്റ്യ ത്ത്യ

r(c)cha റ്റ റ്റ

rc(c)ya ജ്ജ ജ്ജ

rn(n)a റ്റ റ്റ

rt(t)a ത്ത

rttha see rtha

rt(t)ya ത്ത്യ

rtra രത്ര

rtrē രത്രേ

r(t)tha ത്ത

r(t)thya ത്ത്യ

rd(d)a റ്റ

r(d)dha റ്റ

r(d)dhna റ്റ

r(d)dhva റ്റ

rp(p)a റ്റ റ്റ

rb(b)a റ്റ റ്റ

rbh(bh)a റ്റ റ്റ റ്റ

rm(m)a റ്റ റ്റ

ry(y)a റ്റ റ്റ റ്റ

rl(l)a റ്റ

rv(v)a റ്റ റ്റ റ്റ

rśa റ്റ റ്റ

rśva റ്റ

rṣ(ṣ)a റ്റ റ്റ റ്റ

rṣṇa റ്റ റ്റ

rha റ്റ റ്റ

lka	ലക്	ലു	ലു
lga	ലഗ	ലി	തഗ (=tga)
lta	ലി		
lpa	ലി	തപ (=tpa)	
lpya	ലി		
lba	ലി	തബ (=tba)	
lma	ലി	ലി	
lya	ലി		
lra	ലി	ലി	
lla	ലി		
lva	ലി	ലി	
vya	വു		
vra	വു	വു	
vva	വു		

śca	ശച		
ścha	ശച		
śna	ശന	ശന	śnu ശനു ശനു
śma	ശമ	ശമ	
śya	ശ്യ		
śra	ശ്ര	ശ്ര	
śla	ശല		
śva	ശവ	ശവ	
śśa	ശശ		
ṣka	ഷക്	ഷക്	ഷക്
ṣkra	ഷക്ര	ഷക്ര	ഷക്ര
ṣkha	ഷഖ		
ṣṭa	ഷ്ട	ഷ്ട	
ṣṭya	ഷ്ട്യ	ഷ്ട്യ	
ṣṭra	ഷ്ട്ര	ഷ്ട്ര	



ṣṭva	ഷ്ട	ഷ്ട
ṣṭha	ഷ്ഠ	
ṣṇa	ഷ്ണ	
ṣṇya	ഷ്ണ്	
ṣpa	ഷ്പ	
ṣpra	ഷ്പ്ര	ഷ്പ്ര
ṣpha	ഷ്ഫ	
ṣma	ഷ്മ	
ṣya	ഷ്യ	
ṣla	ഷ്ല	
ṣva	ഷ്വ	

ska	സ്ക	സ്ക	സ്ക
skha	സ്ഖ		
sta	സ്ത	സ്ത	സ്ത
stya	സ്ത്യ	സ്ത്യ	സ്ത്യ

stra	സ്ട്ര	സ്ട്ര	സ്ട്ര	stri	സ്ട്രീ
stva	സ്ത്വ				
stha	സ്ത്ഥ				
sna	സ്ന				
snya	സ്ന്യ				
spa	സ്പ				
spya	സ്പ്യ	സ്പ്യ			
spha	സ്ഫ				
sma	സ്മ	സ്ത			
smya	സ്ത്യ				
sya	സ്യ				
sra	സ്ര	സ്ര	സ്ര		
sla	സ്ല				
sva	സ്വ				
ssa	സ്സ				
ssva	സ്സ്വ				

hpa	హపా				
hna	హనా	hnu	హను	hnū	హను
hnyā	హన్యా				
hma	హమా	హమ			
hya	హ్యా				
hra	హరా	హర			
hla	హలా				
hva	హవా				
lla	ల్లా				
lka	ల్కా	ల్క			
lca	ల్చా				
rr (pronounced rr)	ర్ర	ర్ర			

## Telugu: Basic Characters &amp; Ligatures

Vowels	Initial	Diacritic	
a	అ	( ౧ )	
ā	ఆ	౧	
i	ఇ	ఀ & ఁ	
ī	ఈ	ఁ & ం	
u	ఉ	౧	
ū	ఊ	౧	
ɾ	ఋ	౧	
ī	ౠ	౧	
!	ౡ (& ౢ = lu)	౧	
!	ౣ (& ౤ = lū)	౧	
e/ē	ఎ	ఁ & ం	ఁ
ai	ఐ	౧ & ౡ	
o/ō	ఒ	౧	ఁ
au	ఔ	౧	



*Consonants: Velar*

ka	క
kha	ఖ
ga	గ
gha	ఘ
ṅa	ఙ

*Palatal*

ca	చ
cha	ఛ
ja	జ
jha	ఝ
ña	ఞ

*Retroflex*

ṭa	ట
ṭha	ఠ
ḍa	డ
ḍha	ఢ
ṇa	ణ

*Dental*

ta	త
tha	థ
da	ద
dha	ధ
na	న

*Labial*

pa	ప
pha	ఫ
ba	బ
bha	భ
ma	మ

*Sonorants*

ya	య
ra	ర
la	ల
va	వ

*Sibilants*

śa	శ
ṣa	ష
sa	స

*Other*

ha	హ
ḷa	ళ
ra	రి

-a / -ā

k-	క	కా	kh-	ఖ	ఖా
g-	గ	గా	gh-	ఘ	ఘా
ñ-	జ	జా			
c-	చ	చా	ch-	ఛ	ఛా
j-	జ	జా	jh-	ఝ	ఝా
ñ-	ఞ	ఞా			
ṭ-	ట	టా	ṭh-	ఠ	ఠా
ḍ-	డ	డా	ḍh-	ఢ	ఢా
ṇ-	ణ	ణా			
ṛ-	ర	రా	ṛh-	ఠ	ఠా
d-	ద	దా	dh-	ధ	ధా
n-	న	నా			

-a / -ā

p-	ప	పా	ph-	ఫ	ఫా
b-	బ	బా	bh-	భ	భా
m-	మ	మా			
y-	య	యా			
r-	ర	రా			
l-	ల	లా			
v-	వ	వా			
ś-	శ	శా			
ṣ-	ష	షా			
s-	స	సా			
h-	హ	హా			
ḷ-	ళ	ళా			
ṛ-	ఱ	ఱా			



-i / -ī

k-	కి	కీ	kh-	ఖి	ఖీ
g-	గి	గీ	gh-	ఘి	ఘీ
ṇ-	ణి	ణీ			
c-	చి	చీ	ch-	ఛి	ఛీ
j-	జి	జీ	jh-	ఝి	ఝీ & ఝా
ñ-	ఞి	ఞీ			
ṭ-	టి	టీ	ṭh-	థి	థీ
ḍ-	డి	డీ	ḍh-	ఢి	ఢీ
ṇ-	ణి	ణీ			
ṭ-	టి	టీ	ṭh-	థి	థీ
ḍ-	డి	డీ	ḍh-	ఢి	ఢీ
n-	ని	నీ			

-i / -ī

p-	పి	పీ	ph-	ఫి	ఫీ
b-	బి	బీ	bh-	భి	భీ
m-	మి	మీ			
y-	యి	యీ			
r-	రి	రీ			
l-	లి	లీ			
v-	వి	వీ			
ś-	షి	షీ			
ṣ-	షి	షీ			
ś-	సి	సీ			
h-	హి	హీ			
l-	లి	లీ			
r-	రి	రీ			

-u / -ū

k-	కు & కూ	కూ & కూ	kh-	ఖు	ఖూ
g-	గు	గూ	gh-	ఘు	ఘూ
ṅ-	ఙు	ఙూ			
c-	చు	చూ	ch-	ఛు	ఛూ
j-	జు	జూ	jh-	ఝు	ఝూ
ñ-	ఞు	ఞూ			
ṭ-	టు	టూ	ṭh-	ఠు	ఠూ
ḍ-	డు	డూ	ḍh-	ఢు & డు	ఢూ & డూ
ṇ-	ణు	ణూ			
t-	తు	తూ	th-	థు	థూ
d-	దు	దూ	dh-	ధు	ధూ
n-	ను	నూ			

-u / -ū

p-	పు	పూ	ph-	ఫు	ఫూ
b-	బు	బూ	bh-	భు	భూ
m-	ము	మూ			
y-	యు	యూ	r-	రు	రూ
l-	లు	లూ	v-	వు	వూ
ś-	శు	శూ			
ṣ-	షు & ము	షూ & మూ			
s-	సు & సు	సూ & సూ			
h-	హు & హు	హూ & హూ			
ḷ-	ళు	ళూ			
r-	ఱు	ఱూ			



-ఠ / -ఠ̄

k-	క	క	kh-	ఖ	ఖ
g-	గ	గ	gh-	ఘ	ఘ
ṇ-	జ	జ			
c-	చ	చ	ch-	ఛ	ఛ
j-	జ	జ	jh-	ఝ	ఝ
ñ-	ఞ	ఞ			
ṭ-	ట	ట	ṭh-	ఠ	ఠ
ḍ-	డ	డ	ḍh-	ఢ	ఢ
ṇ-	ణ	ణ			
t-	త	త	th-	థ	థ
d-	ద	ద	dh-	ధ	ధ
n-	న	న	...	etc.	

-ఱ / -ఱ̄

k- క

క

...

etc.

-e / -ai

k- క	క	kh- ఖ	ఖ
g- గ	గ	gh- గ్ఘ	గ్ఘ
ṅ- ఙ	ఙ		
c- చ	చ	ch- ఛ	ఛ
j- జ	జ	jh- జ్ఞ	జ్ఞ
ñ- ణ	ణ		
ṛ- ర	ర	ṛh- ర్	ర్
ḍ- డ	డ	ḍh- ఢ	ఢ
ṇ- ణ	ణ		
ṛ- ర	ర	ṛh- ర్	ర్
d- ద	ద	dh- ధ	ధ
n- న	న		

-e / -ai

p- ప	ప	ph- ఫ	ఫ
b- బ	బ	bh- భ	భ
m- మ	మ		
y- య	య		
r- ర	ర		
l- ల	ల		
v- వ	వ		
ś- శ	శ		
ṣ- ష & ష	ష & ష		
z- ఝ	ఝ		
h- హ	హ		
ḷ- ళ	ళ		
ṛ- ర్	ర్		

Sanskrit -e ె also  
rendered as -ē ే  
(especially in prints):

kē ె khē ఖే  
gē ె ghē గ్ఘే

...

ṣē షే & షే

... etc.



-o/-au

k-	కొ	కౌ	kh-	ఖొ	ఖౌ
g-	గొ	గౌ	gh-	ఘొ	ఘౌ
ñ-	జొ	జౌ			
c-	చొ	చౌ	ch-	ఛొ	ఛౌ
j-	జొ	జౌ	jh-	యొ & యౌ	యౌ & యౌ
ñ-	జొ	జౌ			
t-	టొ & టౌ	టౌ	th-	టొ & టౌ	టౌ
ḍ-	డొ	డౌ	ḍh-	ఢొ	ఢౌ
ṇ-	ణొ	ణౌ			
t-	తొ	తౌ	th-	థొ	థౌ
d-	దొ	దౌ	dh-	ధొ	ధౌ
n-	నొ	నౌ			

-o/-au

p-	పొ	పౌ	ph-	ఫొ	ఫౌ
b-	బొ	బౌ	bh-	భొ	భౌ
m-	మొ	మౌ & మా			
y-	యొ	యౌ			
r-	రొ & రౌ	రౌ			
l-	లొ	లౌ			
v-	వొ & వౌ	వౌ			
ś-	శొ	శౌ			
ṣ-	షొ	షౌ			
s-	సొ	సౌ			
h-	హొ & హౌ	హౌ			
ḷ-	ఱొ				
ṛ-	ఱొ	ఱౌ			

Sanskrit -o ॐ also  
rendered as -ō ॐ  
(especially in prints):

kō ॐ khō ॐ  
...  
jhō ॐ & యౌ ...  
vō ॐ & వౌ ...  
hō ॐ & హౌ  
... etc. (see p. xix f.)

## Additional Graphs

𑖀 & 𑖁 *virāma* (Tel. *pollu*), e.g. *alam*: అలమ్

𑖂 *-n*, e.g., *dhāman*: ధామ

○ *-ṁ anusvāra* (Tel. *sunna*)

( *ardhānusvāra* (Tel. *arasunna*) indicating nasalization of preceding vowels, e.g., *āṭa* (Tel. "it is said"): అఱట

𑖃 & 𑖄 & 𑖅 *candrabindu*, esp. in *om*: ఓ ॐ

𑖆 & 𑖇 *-ḥ visarga*

𑖈 *avagraha*

𑖉 alveolar modification of చ and జ: చ్ జ్

## Conjunct Forms

𑖊 & 𑖋 *-k*, e.g., *-kka*: క్ క్

𑖌 *-g*, e.g., *-dga*: గ్

𑖍 *-c*, e.g., *-cca*: చ్

𑖎 *-ch*, e.g., *-cca*: చ్

𑖏 *-t*, e.g., *-kta*: త్

𑖐 *-n*, e.g., *-ghna*: ణ్

𑖑 *-p*, e.g., *-tpa*: ప్ *-pul-pū* (altern.): ప్ ప్

𑖒 *-ph*, e.g., *-tpha*: ఫ్ *-phul-phū* (altern.): ఫ్ ఫ్

𑖓 *-b*, e.g., *-dba*: బ్

𑖔 *-bh*, e.g., *-dbha*: బ్

𑖕 & 𑖖 *-m*, e.g., *-nma*: మ్ & మ్

𑖗 *-y* (Tel. *kiyya* or *kiyyāvaḍi*), e.g., *-śya*: శ్

𑖘 *-yā* (optional), e.g., *vidyā*: విద్య & విద్య

𑖙 & 𑖚 *-r* (Tel., *krārāvaḍi*), e.g., *-śra*: శ్ & శ్

𑖛 *-r* esp. as third conjunct component, e.g., *-ktra*: క్త్

𑖜 *pre-consonantal -r* (Tel. [*valapala*][*gilaka*], "rattle [on the right hand]"), e.g., *darśana*: దశ్

𑖝 *-l*, e.g., *-gla*: గ్

𑖞 *-v*, e.g., *-śva*: శ్

𑖟 *-ś*, e.g., *darśana* (cf. above): దర్శన

𑖠 & 𑖡 *-ṣ*, the latter only for *-kṣa*: క్ష్

𑖢 *-s*, e.g., *-tsa*: త్



Numerals (cf. pp. 180, 204)

౧	౨	౩	౪	౫	౬	౭	౮	౯	౦
1	2	3	4	5	6	7	8	9	0

Fractions

—	౨	౩	౧	౪	౫
1/16	2/16=1/8	3/16	4/16=1/4	8/16=1/2	12/16=3/4

Abbreviations & Contractions (\*=loan-words)

ఆ	* = ఆక్టింగ్	acting
ఉ	= ఉత్తరము	answer
క	* = కసుబా	town
గు	* = గుజారతి	in charge of
గు	* = గుమషస్తా	a clerk, writer or agent
గు	= గురించి	respecting
చం	* = చందు 'on date ...'	(dating documents & letters)
చొ	= చొప్పున	according to, at the rate of

చై	= చౌళ	by, through
జ్ఞ	* = జిన or జినము	people
త	= తర్వాత	afterwards
తా	* = తారీఖి	date, dated ...
తా	* = తాలూకు	appertaining or belonging to
తా    క	* = తాజాకలం	postscript, P.S.
ద	* = దస్థత్	signature
దీ	= దీవి	day, dated ...
ని	= నిమిత్తము	on account of
నెం		number ...
ప్ర	= ప్రకారము	according to
ప్ర	= ప్రథమ	first
ప్ర	= ప్రశ్న	question
బా	* = బాబులు	item, heading
బా    బా	* = బాఫియతు బాషందు	be it known (to you)
మా	* = మారీఫ్	by the hand of, in charge of

మం	* = మంజుమలే	out of (a sum or number of) ...
మొ	* = మొకం	halting place; also 'dated at ...'
య	* = యసం	an individual
య  ఆ	* = యజ్ఞు ఆసారు	'endowed with honour'
రా  రా  రా	= రాజమాన్య రాజప్రాజులువైన	

రాజ||శ్రీ 'His Honour' (address in a letter)

వ	* = వ	and (Pers.)
వ	* = వగైరా	etcetera
వి	= విజ్ఞాపనము or విన్నవము	letter, request
శో   or సే	= శోవకుడైన	'Your humble servant'
శ్నా	= శానా	much, many
స	* = సదరహీ	above-mentioned
సా	* = సాకి	inhabitant of ...
సా	* = సాహెబు	Sāhib
హ	* = హంగామా	temporary

### - Administration

తా	* = తాలూకా	a Talook, division of a district
ప	* = పరగణె	a Pergunnah, district division
మం   or మా	* = మాజౌ	a village, town

### - Anglo-Indian Currency

గగ	= పరహా	a Pagoda
డ	= డబ్బులు	a Dub = 4 Paise
రు & రూ & రు & రూ	= రూపాయలు	Rupees
హా	* = హున్ను	a Hunn, or Pagoda

### - Calendar

ఆ	= ఆదివారము	Sunday
ఆన	*	Anno Domini
కృ	= కృష్ణపక్షము	the dark fortnight
గు	= గురువారము	Thursday



జ	= జయవారము	Tuesday
బ	= బహుళ	the dark fortnight
బు	= బుధవారము	Wednesday
శ	= శనివారము	Saturday
శు	= శుక్రవారము	Friday
శు	= శుద్ధము	the light fortnight
స    or స    *		year
సం    or సం    రం	= సంవత్సరము	year
సం    రపు	= సంవత్సరపు	of a year
సం    రాలు	= సంవత్సరాలు	years (pl.)
సో	= సోమవారము	Monday

## - Weights &amp; Measures

ఖ	= ఖండి or పుట్టి	a Candy (or 'Indian ton')
గ	= గరిశ	a Garise or Garce

## Telugu: Consonant Clusters &amp; Conjuncts

kkā	క్కా	kkā	క్కా	kkṛ	క్కృ
ktā	క్తా	ktā	క్తా	kti	క్తి
ktu	క్తు	ktō	క్తో		
kyā	క్యా	kyā	క్యా		
ktrā	క్త్రా				
ktvā	క్త్వా	ktvā	క్త్వా		
kna	క్నా	knō	క్నో		
kpa	క్పా	kpā	క్పా		
kya	క్య	kyā	క్యా		
kra	క్ర	krā	క్రా	kri	క్రి
klā	క్ల	klē	క్లే		
klyā	క్ల్యా				
kva	క్వా				
kṣā	క్షా	kṣā	క్షా	kṣi	క్షి
kṣu	క్షు	kṣō	క్షో		
kṣṇa	క్షణ				
kṣma	క్షమ				

ksmyā క్షమ్మ

ksya క్ష్య క్ష్యా క్ష్య

ksya క్ష్య

khyā క్ష్య క్ష్యా క్ష్య

gdā గ్ద

gdha గ్ధ గ్ధి గ్ధో గ్ధ

gdhri గ్ధ్రి

gna గ్న గ్నా గ్నే గ్న

gnya గ్న్య

gbha గ్భ

gma గ్మ గ్ము గ్మ

gya గ్య

gra గ్ర గ్రా గ్ర

grya గ్ర్య

gla గ్ల

gva గ్వు గ్వి గ్వు

ghna ఘ్న ఘ్ను ఘ్నో ఘ్న

ghya ఘ్య ఘ్యా ఘ్య ఘ్య

ghra ఘ్ర ఘ్రా ఘ్ర ఘ్ర

nka న్క న్కా న్కీ న్క న్కు న్కు

nkr న్కర్ న్కే న్క

nktē న్కే ["ntke"]

nkṣa న్క్షా న్క్షి న్క్షో న్క్ష

nkṣya న్క్ష్య

nkha న్ఖా న్ఖి న్ఖి

nkhyā న్ఖ్యా న్ఖ్య న్ఖ్య

nga న్గ న్గా న్గి న్గ

ngya న్గ్య



ṅgha ఙ్ఘ ఙ్ఘా ఙ్ఘి ఙ్ఘే

ṅghya ఙ్ఘ్య

ṅghra ఙ్ఘ్ర ఙ్ఘ్రి

ṅma ఙ్ఘ్మ

cca చ్చ చ్చా చ్చి

ccha చ్చా చ్చా చ్చి cchē చ్చే

cchra చ్చ్రా చ్చ్రీ cchru చ్చ్రు

cchrē చ్చ్రే cchrō చ్చ్రో

cchva చ్చ్వా చ్చ్వా

cya చ్చ్య చ్చ్యా చ్యు

jjā జ్జ

jjā జ్జా జ్జా

jā జ్జా jā జ్జా

jya జ్జ్య

jra జ్రా jṛā జ్రా jṛī జ్రీ jṛē జ్రే

jva జ్వ జ్వా

ṅca చ్చా ṅci చ్చి ṅcē చ్చే ṅcō చ్చో

ṅcha చ్చా ṅchi చ్చి

ṅja జ్జా ṅjī జ్జి ṅjē జ్జే

ṅjyā జ్జ్య

ṭka ṭకా ṭkā ṭకా

ṭṭa ṭṭ

ṭya ṭయ

ṭsu ṭసు

ṭhya ṭయ్య

ḍga ḍగ ḍgi ḍగి ḍgī ḍగి

ḍya డ్య

ḍhya డ్య

ṇṭa ṇ

ṇṭha ṇ

ṇḍa ṇ ṇḍi ṇ

ṇḍha ṇ

ṇṇa ṇ

ṇma ṇ ṇmā ṇ

ṇya ṇ ṇyai ṇ

ṇva ṇ

tka త్క

tkai తై

tkra త్క్ర

tkrā త్ర

త్రై

tkri త్క్రి

tkṣa త్క్ష

tkṣi త్క్షి

tta త్త

ttā త్ర

tti త్తి

ttē త్తే

ttō త్తో

(-tt- in other conjuncts is usually reduced to -t-)

ttha త్త

tthā త్ర

tna త్న

tnī త్నీ

tnē త్నే

tnya త్న్య

tnyā త్ర్య

tnyō త్న్యో

tpa త్ప

tpi త్పి

tpu త్పు

త్ప్

tpū త్పు

tpra త్ప్ర

త్రప్

tprā త్రప్ర

tpha త్ఫ

tphu త్ఫు

త్ఫ

tphū త్ఫు

tma త్మ

tmā త్ర

tmi త్మి

tnya త్న్య

tya త్య

tyā త్ర్య

tyu త్యు

tyō త్యో

tra త్ర

త్ర

tri త్రి

trī త్రి

trai త్రై

trya త్రియ

[="tyra"] tryā త్ర్య

tva త్వ

tvē త్వే

tvō త్వో

tsa త్స

tsu త్సు

tsai త్సై

tska త్స్క



tstha త్తన ["tthsa"] tsthā త్తాన  
 tsna త్సన tsnā త్సాన  
 tsya త్సయ tsyā త్సాయ tsyē త్సేయ  
 tsva త్సవ

thya త్తయ

dga ద్గ దగి ద్గి దగు ద్గు

dgra ద్గ్ర

dda ద్ద ద్దర ద్దై ద్దై

ddra ద్ద్ర

ddva ద్దవ ద్దవి ద్దవ్

ddha ద్ధ ద్ధా ద్ధి ద్ధి ద్ధర ద్ధ్ర

ddhya ద్ధయ ద్ధయ

dhvā ద్ధవ

dha ద్ధ ద్ధి ద్ధి

dbra ద్బర

dbha ద్భ ద్భా ద్భి ద్భి ద్భు ద్భు

dbhya ద్భయ ద్భయ

dbhra ద్భ్ర

dma ద్మ

dya ద్య ద్యా ద్య ద్యే ద్యే

dra ద్ర ద్ర ద్రు ద్రు drau ద్రౌ

drya ద్రియ

dva ద్వు ద్వా ద్వి ద్వి ద్వే ద్వే

dvya ద్వియ ద్వియ

dhna ద్ధన ద్ధన

dhma ద్ధమ ద్ధమ

dhya ద్ధయ

dhra ద్ధ్ర ద్ధ్రు ద్ధ్రు

dhva ద్ధవ ద్ధవ ద్ధి ద్ధి

nkr న్క  
 nta న్త    ntā న్తా    ntū న్తు    ntē న్తే  
 ntya న్త్య  
 ntra న్త్ర    ntrā న్త్రా    ntrai న్త్రై    ntrō న్త్రో  
 ntryē న్త్ర్యే  
 ntsa న్త్స    ntsu న్త్సు  
 nthā న్థ    nthi న్థి  
 nda న్ద    ndā న్దా    ndi న్ది    ndu న్దు    ndē న్దే  
 ndra న్ద్ర    ndri న్ద్రి  
 ndva న్ద్వ    ndvā న్ద్వా    ndvi న్ద్వి  
 ndha న్ధ    ndhā న్ధా  
 ndhya న్ధ్య    ndhyā న్ధ్యా  
 ndhra న్ధ్ర    ndhrē న్ధ్రే  
 nna న్న    nnā న్నా    nni న్ని  
 nbra న్బ్ర  
 nma న్మ    nmu న్ము    nmai న్మై

nya న్య    nyu న్యు    nyē న్యే    nyai న్యై    nyō న్యో  
 nra న్ర  
 nva న్వు    nvi న్వి  
 nvra న్వుర    nvri న్విర  
 nsa న్స

pta ప్త    ptē ప్తే    ptau ప్తౌ  
 ptya ప్త్య    ptyā ప్త్యా  
 ptva ప్త్వ    ptvā ప్త్వా  
 pna ప్న    pnu ప్ను    pnē ప్నే    pnō ప్నో  
 ppa ప్ప    ppu ప్పు    ppū ప్పు    ppō ప్పో  
 pya ప్య    pyā ప్యా    pyāi ప్యా  
 pra ప్ర    prā ప్రా    prī ప్రీ  
 prō ప్రౌ  
 pla ప్ల    plu ప్లు  
 psa ప్స    psi ప్సి    psu ప్సు



psya ప్స య psyē ప్సే య

bja బ్జ బ్జా

bda బ్ద బ్దా బ్దే

bdha బ్ధ బ్ధి బ్ధై బ్ధా

bdhva బ్ధవ్ బ్ధవ్

bra బ్ర బ్రా బ్రై బ్రూ

bhya భ్య భ్యా భ్యు భ్యౌ

bhra భ్ర భ్రా భ్రౌ

mna మ్న మ్నా మ్ని మ్నే

mnō మ్నౌ

mpa మ్ప మ్పా మ్పౌ

mpra మ్ప్ర మ్ప్రా మ్ప్రౌ

mba మ్బ మ్బి మ్బు

mbha మ్భ మ్భి మ్భౌ

mbhē మ్భే మ్భౌ

mma మ్మ మ్మా మ్మౌ

mya మ్మ్య మ్మ్యా మ్మ్యే మ్మ్యౌ

mra మ్ర మ్రి మ్రై మ్రౌ

m̐la మ్ల మ్లే మ్లౌ

yya య్య య్యా య్యే య్యౌ

yva య్వు

(r-ligatures are frequently built with ౠ)

rga ర్గ ర్గు ర్గౌ

rghya ర్ఘ్య ర్ఘ్యా ర్ఘ్యై ర్ఘ్యౌ

r̐ga ర్గ్ఱ ర్గ్ఱి ర్గ్ఱౌ

rca ర్చ ర్చి ర్చౌ

rcya ర్చ్య ర్చ్యా ర్చ్యై ర్చ్యౌ

rja ర్జ ర్జి ర్జి  
 rṇa ర్ణ ర్ణా ర్ణే ర్ణే  
 rta ర్త ర్తి ర్తి  
 rtra ర్త్ర ర్త్రా ర్త్రే ర్త్రే  
 rtsnya ర్తస్య ర్తస్యే ర్తస్యే ర్తస్యే  
 rtha ర్థ ర్థా ర్థి ర్థి ర్థి  
 rthya ర్థ్య ర్థ్యా ర్థ్య ర్థ్య  
 rda ర్ద ర్దా ర్ది ర్ది ర్దు ర్దు  
 rdha ర్ధ ర్ధా ర్ధా ర్ధి ర్ధి ర్ధు ర్ధు  
 rdhna ర్ధ్న ర్ధ్నా ర్ధ్న ర్ధ్ని ర్ధ్ని  
 rdhva ర్ధ్వ ర్ధ్వ  
 rna ర్న్ ర్నా ర్ని ర్ని  
 rpa ర్ప ర్పా ర్పి ర్పి ర్పు ర్పు ర్పు  
 rpū ర్పూ ర్పూ  
 rbra ర్బ్ర ర్బ్రా ర్బ్ర ర్బ్ర  
 rbha ర్భ ర్భా ర్భు ర్భు ర్భౌ ర్భౌ

rma ర్మ ర్మా ర్మి ర్మి ర్ము ర్ము  
 rya ర్య ర్యా ర్య ర్య  
 rla ర్ల ర్లొ ర్లొ  
 rva ర్వ ర్వా ర్వ ర్వ ర్వ ర్వై ర్వై  
 rvyā ర్వ్యా ర్వ్యా ర్వ్య ర్వ్య  
 rśa ర్శ ర్శి ర్శి ర్శే ర్శే  
 rśva ర్శ్వ ర్శ్వ ర్శ్వ  
 rṣa ర్ష ర్షా ర్షి ర్షి ర్షే ర్షే  
 rṣṇa ర్ష్ణ ర్ష్ణి ర్ష్ణి  
 rha ర్హ ర్హా ర్హి ర్హి ర్హొ ర్హొ  
 lka ల్క ల్కీ ల్కీ  
 lkya ల్క్య ల్క్య  
 lga ల్గ ల్గు ల్గు  
 lpa ల్ప ల్పా ల్పా ల్పొ ల్పొ  
 lbhya ల్భ్య ల్భ్యే ల్భ్యే



lma ల్మ lmai ల్మై

lya ల్య lyā ల్యై lyu ల్యు lyē ల్యే

lla ల్ల

lva ల్వు

lha ల్హ lhā ల్హై

vya వ్య vyā వ్యై vyu వ్యు vyē వ్యే

vra వ్ర vrā వ్రై vrī వ్రీ vrē వ్రే

śca శ్చ ścā శ్చై ści శ్చి ścē శ్చే ścai శ్చై

ścya శ్చ్య ścyu శ్చ్యు

śna శ్న śnā శ్నై śnī శ్నీ śnu శ్ను

śma శ్మ శ్మై

śya శ్య śyā శ్యై శ్యు శ్యే śyai శ్యై

śra శ్ర śrā శ్రై śrī శ్రీ (also శ్ర్ śr)

śrī శ్రీ శ్రీ శ్రీ śru శ్రు śrē శ్రే śrō శ్రౌ

śla శ్ల ślā శ్లై śli శ్లి ślē శ్లే

śva శ్వ śvi శ్వై śvē శ్వే śvō శ్వౌ

śśa (for -h ś-) శ్శ శ్శు

śśra శ్శ్ర శ్శ్రు

ṣka ష్క ṣkā ష్కై ṣku ష్కు ṣkṛ ష్కృ (vowel position!)

ṣkra ష్క్ర ష్క్రై

ṣṭa ష్ట ṣṭā ష్టై ṣṭi ష్టి ṣṭu ష్టు ṣṭau ష్టౌ

ṣtya ష్ట్య ṣtyā ష్ట్యై

ṣṭra ష్ట్ర ష్ట్రై ṣṭrē ష్ట్రే ṣṭrō ష్ట్రౌ

ṣṭva ష్టవ ష్టవై

ṣṭha ష్ఠ ṣṭhā ష్ఠై ṣṭhi ష్ఠి ṣṭhē ష్ఠే

ṣṇa ష్ణ ṣṇu ష్ణు ṣṇō ష్ణౌ ṣṇau ష్ణౌ

ṣṇya ష్ణ్య

ṣpa ష్ప ṣpā ష్పై ṣpi ష్పి ṣpu ష్పు ṣṣ

ṣpū ష్పూ ష్పౌ ṣpai ష్పై

ṣpra ప్ప్రా ṣprā ప్ప్రా

ṣma ప్మā ṣmā ప్మā ṣmi ప్మి ప్మి

ṣya ప్యā ṣyā ప్యā ṣyē ప్యే ṣyai ప్యై

ṣva ప్వā ṣvā ప్వā

ska స్కā skā స్కā skṛ స్కృ

skha స్ఖ

sta స్తā stā స్తā stu స్తు స్తు stē స్తే stō స్తో

stau స్తౌ

stya స్త్యā styā స్త్యā styō స్త్యో

stra స్త్రā strā స్త్రā strē స్త్రే

strya స్త్ర్య

stva స్త్వā stvā స్త్వā

stha స్థā sthā స్థā sthū స్థూ sthē స్థే sthai స్థై

sthau స్థౌ

sthya స్థ్యā sthyā స్థ్యā

sna స్నā snā స్నā sni స్ని

spa స్పā spa స్పā

spha స్ఫā sphā స్ఫā sphu స్ఫూ స్ఫూ

sphū స్ఫౌ sphū స్ఫౌ sphō స్ఫో

sma స్మā sma స్మā smi స్మి smṛ స్మృ smai స్మై

smya స్మ్యā smyā స్మ్యā

syā స్యā syā స్యā syē స్యే syai స్యై syō స్యో

sra స్రā sra స్రā srō స్రో

sva స్వā svā స్వā svi స్వి svē స్వే

ssa స్సā ssa స్సā ssō స్సో

sstha స్స్థ

ssva స్స్వā ssvā స్స్వā

hṇa హ్ణā hṇā హ్ణā hṇī హ్ణి hṇē హ్ణే

hna హ్నā hni హ్ని hñē హ్నే

hma హ్మā hma హ్మā hmō హ్మో



hya హ్య hyā హ్య̄ hyō హ్యో  
hra హ్ర hri హ్రి  
hla హ్లా hlā హ్లా  
hva హ్వ hvā హ్వ̄ hvi హ్వి

## Kannada: Basic Characters &amp; Ligatures

Vowels	Initial	Diacritic
a	ಅ	( ಾ )
ā	ಆ & ಆ಼	ಠಾ
i	ಇ	ಠಿ & ಠಿ
ī	ಈ (& ಯಿ ಯಿ) yī	ಠೀ & ಠೀ
u	ಉ	ಠು & ಠು
ū	ಊ	ಠೂ & ಠೂ
ē	ಋ	ಠೃ
ī	ಋ಼ & ಋ಼	ಠೃ಼
l	ಲ	ಠಲ
l̄	ಲ಼	ಠಲ಼
e/ē	ಎ ಎ & ಎ಼ (& ಯೆ ye)	ಠೆ ಠೇ
ai	ಐ	ಠೈ & ಠೈ
o/ō	ಒ ಓ	ಠೊ & ಠೊ ಠೋ & ಠೋ
au	ಔ	ಠೌ

*Consonants: Velar*

ka	ಕ
kha	ಖ
ga	ಗ
gha	ಘ & ಘೆ & ಘು
ṅa	ಙ

*Palatal*

ca	ಚ
cha	ಛ & ಚೆ
ja	ಜ
jha	ಝ
ña	ಞ

*Retroflex*

ṭa	ಟ
ṭha	ಠ
ḍa	ಡ
ḍha	ಢ
ṇa	ಣ

*Dental*

ta	ತ
tha	ಥ
da	ದ
dha	ಧ
na	ನ

*Labial*

pa	ಪ & ಪೆ
pha	ಫ & ಫೆ
ba	ಬ
bha	ಭ & ಬಿ & ಬೆ & ಬು
ma	ಮ & ಮು

*Sonorants*

ya	ಯ
ra	ರ
la	ಲ & ಲು
va	ವ & ವು

*Sibilants*

śa	ಶ & ಶೆ
ṣa	ಷ & ಷ & ಷು & ಷು
sa	ಸ

*Other*

ha	ಹ & ಹೆ & ಹು
ḷa	ಳ (substituting ḍa or la)
ḷa	ೞ
ra	ರ



-a / -ā

k-	ಕೆ	ಕಾ	kh-	ಖ	ಖಾ
g-	ಗ	ಗಾ	gh-	ಘ & ಘೆ & ಘು	ಘಾ
ṅ-	ಙ	ಙಾ			
c-	ಚ	ಚಾ	ch-	ಛ & ಚೆ	ಛಾ
j-	ಜ	ಜಾ	jh-	ಝ	ಝಾ
ñ-	ಞ	ಞಾ			
ṭ-	ಟ	ಟಾ	ṭh-	ಠ	ಠಾ
ḍ-	ಡ	ಡಾ	ḍh-	ಢ	ಢಾ
ṇ-	ಣ	ಣಾ			
t-	ತ	ತಾ	th-	ಥ	ಥಾ
d-	ದ	ದಾ	dh-	ಧ	ಧಾ
n-	ನ	ನಾ			

-a / -ā

p-	ಪ & ಪೆ	ಪಾ & ಪಾ	ph-	ಫ & ಫೆ	ಫಾ
b-	ಬ	ಬಾ	bh-	ಭ & ಬೆ & ಬೆ & ಬು	ಭಾ
m-	ಮ & ಮು	ಮಾ			
y-	ಯ	ಯಾ			
r-	ರ	ರಾ			
l-	ಲ & ಲು	ಲಾ			
v-	ವ & ವು	ವಾ			
ś-	ಶ & ಶು	ಶಾ			
ṣ-	ಷ & ಷು & ಷು & ಷು	ಷಾ			
s-	ಸ	ಸಾ			
h-	ಹ & ಹು & ಹು	ಹಾ	l-	ಳ	ಳಾ
ḷ-	ಱ	ಱಾ	r-	ಱ	ಱಾ

-i / -ī

k-	ಕೆ	ಕೇ	kh-	ಖೆ	ಖೇ
g-	ಗೆ	ಗೇ	gh-	ಘೆ	ಘೇ
ñ-	ಙೆ	ಙೇ			
c-	ಚೆ	ಚೇ	ch-	ಛೆ	ಛೇ
j-	ಜೆ	ಜೇ	jh-	ಝೆ	ಝೇ
ñ-	ಞೆ	ಞೇ			
ṭ-	ಟೆ	ಟೇ	ṭh-	ಠೆ	ಠೇ
d-	ಡೆ	ಡೇ	dḥ-	ಢೆ	ಢೇ
ṇ-	ಣೆ	ಣೇ			
ṭ-	ತಿ	ತೇ	th-	ಥೆ	ಥೇ
d-	ದಿ	ದೇ	dh-	ಧೆ	ಧೇ
n-	ನಿ	ನೇ			

-i / -ī

p-	ಪೆ	ಪೇ	ph-	ಫೆ	ಫೇ
b-	ಬೆ	ಬೇ	bh-	ಭೆ	ಭೇ
m-	ಮೆ	ಮೇ			
y-	ಯೆ	ಯೇ			
r-	ರೆ	ರೇ			
l-	ಲೆ	ಲೇ			
v-	ವೆ	ವೇ			
ś-	ಶೆ	ಶೇ			
ṣ-	ಷೆ	ಷೇ			
s-	ಸೆ	ಸೇ			
h-	ಹೆ	ಹೇ	ḷ-	ಳೆ	ಳೇ
ḷ-	ಱೆ	ಱೇ	ṛ-	ಠೆ	ಠೇ



-u / -ū

k-	ಕು	ಕೂ	kh-	ಖು	ಖೂ
g-	ಗು	ಗೂ	gh-	ಘು	ಘೂ
ṅ-	ಙು	ಙೂ			
c-	ಚು	ಚೂ	ch-	ಛು	ಛೂ
j-	ಜು	ಜೂ	jh-	ಝು	ಝೂ
ñ-	ಞು	ಞೂ			
ṭ-	ಟು	ಟೂ	ṭh-	ಠು	ಠೂ
ḍ-	ಡು	ಡೂ	ḍh-	ಢು	ಢೂ
ṇ-	ಣು	ಣೂ			
t-	ತು	ತೂ	th-	ಥು	ಥೂ
d-	ದು	ದೂ	dh-	ಧು	ಧೂ
n-	ನು	ನೂ			

-u / -ū

p-	ಪು	ಪೂ	ph-	ಫು	ಫೂ
b-	ಬು	ಬೂ	bh-	ಭು	ಭೂ
m-	ಮು	ಮೂ			
y-	ಯು	ಯೂ	r-	ರು	ರೂ
l-	ಲು	ಲೂ	v-	ವು	ವೂ
ś-	ಶು	ಶೂ			
ṣ-	ಷು	ಷೂ			
s-	ಸು	ಸೂ			
h-	ಹು	ಹೂ	ḷ-	ಳು	ಳೂ
ḻ-	ಱು	ಱೂ	ṛ-	ಱು	ಱೂ

-೨ / -ರೈ

k-	ಕೈ	ಕೈ	kh-	ಖೈ	ಖೈ
g-	ಗೈ	ಗೈ	gh-	ಘೈ	ಘೈ
ñ-	ಞೈ	ಞೈ			
c-	ಚೈ	ಚೈ	ch-	ಛೈ	ಛೈ
j-	ಜೈ	ಜೈ	jh-	ಝೈ	ಝೈ
ñ-	ಞೈ	ಞೈ			
ṭ-	ಟೈ	ಟೈ	ṭh-	ಠೈ	ಠೈ
ḍ-	ಡೈ	ಡೈ	ḍh-	ಢೈ	ಢೈ
ṇ-	ಣೈ	ಣೈ			
t-	ತೈ	ತೈ	th-	ಥೈ	ಥೈ
d-	ದೈ	ದೈ	dh-	ಧೈ	ಧೈ
n-	ನೈ	ನೈ			

... etc.

-ಲಿ / -ಲಿ

k- ಕೈ

ಕೈ

... etc.



-e / -ai

k-	ಕೆ	ಕೈ	kh-	ಖೆ	ಖೈ
g-	ಗೆ	ಗೈ	gh-	ಘೆ	ಘೈ
ñ-	ಞೆ	ಞೈ			
c-	ಚೆ	ಚೈ	ch-	ಛೆ	ಛೈ
j-	ಜೆ	ಜೈ	jh-	ಝೆ	ಝೈ
ñ-	ಞೆ	ಞೈ			
ṭ-	ಟೆ	ಟೈ	ṭh-	ಠೆ	ಠೈ
ḍ-	ಡೆ	ಡೈ	ḍh-	ಢೆ	ಢೈ
ṇ-	ಣೆ	ಣೈ			
t-	ತೆ	ತೈ	th-	ಥೆ	ಥೈ
d-	ದೆ	ದೈ	dh-	ಧೆ	ಧೈ
n-	ನೆ	ನೈ			



-e / -ai

p-	ಪೆ	ಪೈ
b-	ಬೆ	ಬೈ
m-	ಮೆ	ಮೈ
y-	ಯೆ	ಯೈ
r-	ರೆ	ರೈ
l-	ಲೆ	ಲೈ
v-	ವೆ	ವೈ
ś-	ಶೆ	ಶೈ
ṣ-	ಷೆ	ಷೈ
s-	ಸೆ	ಸೈ

ph-	ಫೆ	ಫೈ
bh-	ಭೆ	ಭೈ

Sanskrit -e ऐ

also rendered as -ē ऐः

kē कै khē खै

gē गै ghē ग़ै

nē नै

... etc.

h-	ಹೆ	ಹೈ	ḥ-	ಹೆ	ಹೈ
ḷ-	ಱೆ	ಱೈ	ṛ-	ಠೆ	ಠೈ



-o / -au

k-	ಕೊ	ಕೌ	kh-	ಖೊ	ಖೌ
g-	ಗೊ	ಗೌ	gh-	ಘೊ	ಘೌ
ñ-	ಙೊ	ಙೌ			
c-	ಚೊ	ಚೌ	ch-	ಛೊ	ಛೌ
j-	ಜೊ	ಜೌ	jh-	ಝೊ	ಝೌ
ñ-	ಞೊ	ಞೌ			
ṭ-	ಟೊ	ಟೌ	ṭh-	ಠೊ	ಠೌ
ḍ-	ಡೊ	ಡೌ	ḍh-	ಢೊ	ಢೌ
ṇ-	ಣೊ	ಣೌ			
t-	ತೊ	ತೌ	th-	ಥೊ	ಥೌ
d-	ದೊ	ದೌ	dh-	ಧೊ	ಧೌ
n-	ನೊ	ನೌ			



-o / -au

p-	ಪೊ	ಪೌ	ph-	ಫೊ	ಫೌ
b-	ಬೊ	ಬೌ	bh-	ಭೊ	ಭೌ
m-	ಮೊ	ಮೌ			

y-	ಯೊ	ಯೌ
r-	ರೊ	ರೌ
l-	ಲೊ	ಲೌ
v-	ವೊ	ವೌ
ś-	ಶೊ	ಶೌ
ṣ-	ಷೊ	ಷೌ
s-	ಸೊ	ಸೌ

Sanskrit -o ರೊ

also rendered as -ō ರೋ:

kō ಕೋ khō ಖೋ

gō ಗೋ ... etc.

special forms:

pō ಪೋ phō ಫೋ

vō ವೋ (cf. p. xxi)

h-	ಹೊ	ಹೌ	ḷ-	ಱೊ	ಱೌ
ḷ-	ಱೊ	ಱೌ	r-	ರೊ	ರೌ



## Additional Graphs

□ <sup>6</sup> & □ <sup>7</sup>	virāma e.g. alam:	ಅಲಮ <sup>6</sup> & ಅಲಮ್
≡	-n, e.g., dhāman:	ಧಾಮ≡
○	-ṁ (anusvāra)	
ಃ	-ḥ (visarga)	
ಌ	-ḥ (jihvāmūliya)	
○○	-ḥ (upadhmāniya)	
S	avagraha (only in prints; avagraha not documented in mss.!)	

## Conjunct Forms

□ <sub>ಕ</sub>	-k-, e.g., -tka-:	ತ <sub>ಕ</sub>
□ <sub>ಗ</sub>	-g-, e.g., -dga-:	ದ <sub>ಗ</sub>
□ <sub>ಜ</sub>	-c-, e.g., -cca-:	ಚ <sub>ಜ</sub>
□ <sub>ಛ</sub> & □ <sub>ಞ</sub>	-ch-, e.g., -cca-:	ಚ <sub>ಛ</sub> & ಚ <sub>ಞ</sub>
□ <sub>ಜ್</sub>	-j-, e.g., -bjā-:	ಬ <sub>ಜ್</sub>
□ <sub>ತ</sub>	-t-, e.g., -kta-:	ಕ <sub>ತ</sub>

□ <sub>ದ</sub>	-d-, e.g., -bda-:	ಬ <sub>ದ</sub>
□ <sub>ಧ</sub>	-dh-, e.g., -bdha-:	ಬ <sub>ಧ</sub>
□ <sub>ಢ</sub>	-n-, e.g., -ghna-:	ಘ <sub>ಢ</sub>
□ <sub>ಪ</sub>	-p-, e.g., -tpa-:	ತ <sub>ಪ</sub>
□ <sub>ಫ</sub>	-ph-, e.g., -tpha-:	ತ <sub>ಫ</sub>
□ <sub>ಬ</sub>	-b-, e.g., -dba-:	ದ <sub>ಬ</sub>
□ <sub>ಭ</sub>	-bh-, e.g., -dbha-:	ದ <sub>ಭ</sub>
□ <sub>ಮ</sub>	-m-, e.g. -nma-:	ನ <sub>ಮ</sub>
□ <sub>ಯ</sub>	-y-, e.g., -śya-:	ಶ <sub>ಯ</sub>
□ <sub>ರ</sub> & □ <sub>ರ̣</sub>	post-consonantal -r-, e.g., -śra-:	ಶ್ರ & ಶ್ರ̣
□ <sub>ಠ</sub>	pre-consonantal -r-, e.g., darśana-:	ದರ್ಶನ
□ <sub>ಗ್</sub>	-l-, e.g. -gla-:	ಗ <sub>ಗ್</sub>
□ <sub>ವ</sub> & □ <sub>ವ̣</sub>	-v-, e.g. -śva-:	ಶ್ವ & ಶ್ವ̣
□ <sub>ಷ</sub> & □ <sub>ಷ̣</sub>	-ṣ-, the latter only for -kṣa-:	ಕ್ಷ̣
□ <sub>ಸ</sub>	-s-, e.g. -tsa-:	ತ <sub>ಸ</sub>

## Numerals (cf. pp. 138, 204)

೧ ೨ ೩ ೪ ೫ ೬ ೭ ೮ ೯ ೦

&

೧ ೨ ೩ ೪ ೫ ೬ ೭ ೮ ೯ ೦

1 2 3 4 5 6 7 8 9 0

## Fractions

I II III — = ≡  
 $\frac{1}{16}$   $\frac{2}{16} = \frac{1}{8}$   $\frac{3}{16}$   $\frac{4}{16} = \frac{1}{4}$   $\frac{8}{16} = \frac{1}{2}$   $\frac{12}{16} = \frac{3}{4}$

## Abbreviations &amp; Contractions

ಸಂವತ್ಸರ samvat

ಶ್ಲೋಕ || ślōka

## Kannada: Consonant Clusters &amp; Conjuncts

kka ಕ್ಕಾ kkā ಕ್ಕಾಃ kkr ಕ್ಕರ

kta ಕ್ತಾ ktā ಕ್ತಾಃ kti ಕ್ತಿ ktu ಕ್ತು ktō ಕ್ತೋ

ktya ಕ್ತ್ಯಾ ktyā ಕ್ತ್ಯಾಃ

ktra ಕ್ತ್ರಾ ಕ್ತ್ರಾಃ

ktva ಕ್ತ್ವಾ ktvā ಕ್ತ್ವಾಃ

kna ಕ್ನಾ knō ಕ್ನೋ

kpa ಕ್ಪಾ kpā ಕ್ಪಾಃ

kya ಕ್ಯಾ kyā ಕ್ಯಾಃ

kra ಕ್ರಾ krā ಕ್ರಾಃ kri ಕ್ರಿ krō ಕ್ರೋ

kla ಕ್ಲಾ klē ಕ್ಲೋ

klya ಕ್ಲ್ಯಾ

kva ಕ್ವಾ

kṣa ಕ್ಷಾ kṣā ಕ್ಷಾಃ kṣi ಕ್ಷಿ kṣu ಕ್ಷು kṣō ಕ್ಷೋ

kṣṇa ಕ್ಷಣ

kṣma ಕ್ಷಮಾ kṣmī ಕ್ಷಮೀ



kṣmyā ಕ್ಷ್ಮಯಾ

kṣya ಕ್ಷಯಾ ಕṣyā ಕ್ಷಯಾ

kṣva ಕ್ಷವಾ

khya ಕ್ಷಯಾ khyai ಕ್ಷಯೇ

gdā ಗದಾ

gdvā ಗದವಾ

gdha ಗದಾ ಗdhī ಗದೀ ಗdho ಗದೋ

gdhrī ಗದರೀ

gna ಗನಾ gnā ಗನಾ gnē ಗನೇ

gnya ಗನ್ಯಾ

gbha ಗಭಾ

gma ಗಮಾ gmu ಗಮು

gya ಗಯಾ

gra ಗರಾ grā ಗರಾ

grya ಗ್ರಯಾ

gla ಗಲಾ glā ಗಲಾ

gva ಗವಾ gvi ಗವಿ

ghna ಗಢಾ ghnu ಗಢು ghno ಗಢೋ

ghya ಗಢಯಾ ghyā ಗಢಯಾ ghyau ಗಢಯೇ

ghra ಗಢರಾ ghrā ಗಢರಾ ghrē ಗಢರೇ

*In consonant clusters ṇ- is usually represented by anusvāra.*

ṇka ಣಕಾ

ṇga ಣಗಾ ṇgi ಣಗೀ

cca ಚಕಾ ccā ಚಕಾ cci ಚಕೀ

ccha ಚಕಾ ಚಕಾ cchā ಚಕಾ cchi ಚಕೀ cchē ಚಕೇ

cchra ಚಕರಾ cchrī ಚಕರೀ cchru ಚಕರು cchrē ಚಕರೇ

cchro ಚಕರೋ

cchva ಚ್ಚವ cchvā ಚ್ಚಾವ  
cya ಚ್ಯ cyā ಚ್ಯಾ cyu ಚ್ಯು

jjā ಜ್ಜā  
jjnā ಜ್ಜನā jñā ಜ್ಞā  
jñā ಜ್ಞā  
jya ಜ್ಯ  
jra ಜ್ರā jrā ಜ್ರā jri ಜ್ರಿ jre ಜ್ರೇ  
jva ಜ್ವā jvā ಜ್ವā

*In consonant clusters ñ- is usually represented by anusvāra.*

ñca ञ्च

ṭka ṭṭā

ṭṭa ṭṭā

ṭya ṭṭā

tsu ಟ್ಸು

ṭhya ಠ್ಯ

ḍga ḍgi ḍgi

ḍya ḍ್ಯ

ḍhya ḍ್ಯ

*In consonant clusters ṇ- is usually represented by anusvāra.*

ṇṭa ಣ್ಠ

ṇṭha ಣ್ಠ

ṇḍa ಣ್ಡ ṇḍi ಣ್ಡಿ

ṇḍha ಣ್ಡ

ṇṇa ಣ್ಣ

ṇma ಣ್ಮ ṇmā ಣ್ಮ



ṇya ಣ್ಯೈ ṇyai ಣೈ

ṇva ಣ್ವ

tka ತ್ಕ ತ್ಕೈ

tkra ತ್ಕ್ರ ತ್ಕ್ರೈ tkri ತ್ಕ್ರಿ

tkṣa ತ್ಕ್ಷ

tta ತ್ತ ತ್ತೈ tti ತ್ತಿ ತ್ತೇ tto ತ್ತೋ

ttra ತ್ತ್ರ

ttha ತ್ಥ ತ್ಥೈ

tna ತ್ನ ತ್ನೈ tnē ತ್ನೇ

tnya ತ್ನ್ಯ ತ್ನ್ಯೈ tnyo ತ್ನ್ಯೋ

tpa ತ್ಪ ತ್ಪೈ tpi ತ್ಪಿ ತ್ಪು ತ್ಪು

tpṛa ತ್ಪ್ರ ತ್ಪ್ರೈ

tpha ತ್ಫ ತ್ಫೈ tphu ತ್ಫು ತ್ಫು

tma ತ್ಮ ತ್ಮೈ tmi ತ್ಮಿ

tmya ತ್ಮ್ಯ ತ್ಮ್ಯೈ

tya ತ್ಯೈ tyā ತ್ಯೈ tyu ತ್ಯು ತ್ಯೋ

tra ತ್ರ ತ್ರಿ ತ್ರೈ trai ತ್ರೈ

trya ತ್ರ್ಯೈ tryā ತ್ರ್ಯೈ

tva ತ್ವ ತ್ವೈ tvo ತ್ವೋ

tsa ತ್ಸ ತ್ಸು ತ್ಸೈ

tska ತ್ಸಕ್ ತ್ಸಕ್

tsṭha ತ್ಸಠ ತ್ಸಠ

tsna ತ್ಸನ್ ತ್ಸನ್

tsya ತ್ಸ್ಯ ತ್ಸ್ಯೈ tsyē ತ್ಸ್ಯೈ

tsva ತ್ಸವ ತ್ಸವ

thya ಥೈ

dga ದ್ಗ ದ್ಗೈ dgu ದ್ಗು

dgra ದ್ಗ್ರ ದ್ಗ್ರೈ

dda ದ್ದ ದ್ದೈ ddai ದ್ದೈ

ddra ದ್ರ

ddva ದ್ವ ದ್ವಿ ದ್ವಿ

ddha ದ್ಧ ddhā ದ್ಧಾ ddhi ದ್ಧಿ ddhr ದ್ಧ್ರ

ddhya ದ್ಧ್ಯ ddhyā ದ್ಧ್ಯಾ

dhvā ದ್ವಾ

dba ದ್ಬ dbi ದ್ಬಿ

dbra ದ್ಬ್ರ

dbha ದ್ಭ dbhā ದ್ಭಾ dbhi ದ್ಭಿ dbhū ದ್ಭು

dbhya ದ್ಭ್ಯ dbhyo ದ್ಭ್ಯೋ

dbhra ದ್ಭ್ರ

dma ದ್ಮ

dya ದ್ಯ dyā ದ್ಯಾ dyē ದ್ಯೇ

dra ದ್ರ drū ದ್ರು drau ದ್ರೌ

drya ದ್ರ್ಯ

dva ದ್ವ dvā ದ್ವಾ dvi ದ್ವಿ dvē ದ್ವೇ

dvyā ದ್ವ್ಯ dvā ದ್ವ್ಯಾ

dhna ಧ್ನ dhnā ಧ್ನಾ

dhma ಧ್ಮ dhmā ಧ್ಮಾ

dhya ಧ್ಯ

dhra ಧ್ರ dhru ಧ್ರು

dhva ಧ್ವ dhvā ಧ್ವಾ dhvi ಧ್ವಿ

nta ನ್ತ ntā ನ್ತಾ ntu ನ್ತು ntē ನ್ತೇ

ntya ನ್ತ್ಯ

ntra ನ್ತ್ರ ntrā ನ್ತ್ರಾ ntrai ನ್ತ್ರೈ

ntro ನ್ತ್ರೋ

ntryē ನ್ತ್ರೈ

ntsa ನ್ತ್ಸ ntsu ನ್ತ್ಸು

nthā ನ್ಥ nthi ನ್ಥಿ

nda ನ್ಡ ndā ನ್ಡಾ ndi ನ್ಡಿ ndu ನ್ಡು ndē ನ್ಡೇ

ndra ನ್ದ್ರ ndri ನ್ದ್ರಿ

ndva ನ್ದ್ವ ndvā ನ್ದ್ವಾ ndvi ನ್ದ್ವಿ



ndha ನ್ಧಾ ndhā ನ್ಧಾ ndhū ನ್ಧು  
 ndhya ನ್ಧ್ಯಾ ndhyā ನ್ಧ್ಯಾ  
 ndhra ನ್ಧ್ರಾ ndhrē ನ್ಧ್ರೇ  
 nna ನ್ನಾ nnā ನ್ನಾ nni ನ್ನಿ  
 nbra ನ್ಬ್ರಾ  
 nma ನ್ಮಾ nmū ನ್ಮು nmai ನ್ಮೇ  
 nya ನ್ಯಾ nyu ನ್ಯು nyē ನ್ಯೇ nyai ನ್ಯೈ  
 nyo ನ್ಯೊ  
 nra ನ್ರಾ  
 nva ನ್ವಾ nvi ನ್ವಿ  
 nvra ನ್ವ್ರಾ nvrī ನ್ವ್ರೇ  
 nsa ನ್ಸಾ

pta ಪ್ತಾ ptē ಪ್ತೇ ptau ಪ್ತೌ  
 ptya ಪ್ತ್ಯಾ ptyā ಪ್ತ್ಯಾ  
 ptva ಪ್ತ್ವಾ ptvā ಪ್ತ್ವಾ

pna ಪ್ನಾ pnu ಪ್ನು pnē ಪ್ನೇ pno ಪ್ನೊ  
 ppa ಪ್ಪಾ ppu ಪ್ಪು ppū ಪ್ಪು  
 pya ಪ್ಯಾ pyā ಪ್ಯಾ pyai ಪ್ಯೈ  
 pra ಪ್ರಾ prā ಪ್ರಾ prī ಪ್ರೇ pro ಪ್ರೊ  
 pla ಪ್ಲಾ plu ಪ್ಲು  
 psa ಪ್ಸಾ psi ಪ್ಸಿ psu ಪ್ಸು  
 psya ಪ್ಸ್ಯಾ psyē ಪ್ಸ್ಯೇ

bja ಬ್ಜಾ bjā ಬ್ಜಾ bdē ಬ್ಜೇ  
 bda ಬ್ಧಾ bdā ಬ್ಧಾ bdē ಬ್ಧೇ  
 bdha ಬ್ಧಾ bdhi ಬ್ಧಿ bdhai ಬ್ಧೈ  
 bdhva ಬ್ಧವಾ bdhvā ಬ್ಧವಾ  
 bra ಬ್ರಾ brā ಬ್ರಾ brū ಬ್ರೂ

bhya ಭ್ಯಾ bhyā ಭ್ಯಾ bhyu ಭ್ಯು bhyo ಭ್ಯೊ  
 bhra ಭ್ರಾ bhrā ಭ್ರಾ bhrū ಭ್ರೂ

mna ಮ್ನಾ mnā ಮ್ನಾ mnī ಮ್ನೀ mnē ಮ್ನೇ

mno ಮ್ನೊ

mpa ಮ್ಪಾ mpū ಮ್ಪು

mpa ಮ್ಪಾ mprā ಮ್ಪ್ರಾ

mba ಮ್ಬಾ mbi ಮ್ಬಿ mbu ಮ್ಬು

mbha ಮ್ಭಾ mbhī ಮ್ಭೀ mbhū ಮ್ಭು

mbhē ಮ್ಭೇ mbho ಮ್ಭೊ

mma ಮ್ಮಾ mmā ಮ್ಮಾ

mya ಮ್ಯಾ myā ಮ್ಯಾ myē ಮ್ಯೇ myo ಮ್ಯೊ

mra ಮ್ರಾ mri ಮ್ರಿ mrē ಮ್ರೇ mro ಮ್ರೊ

m̐la ಮ್ಲಾ m̐lē ಮ್ಲೇ m̐lo ಮ್ಲೊ

yya ಯ್ಯಾ yyā ಯ್ಯಾ yyē ಯ್ಯೇ

yva ಯ್ವಾ

(r-ligatures are frequently built with F)

rga ರ್ಗಾ rgu ರ್ಗು rgē ರ್ಗೇ

rghya ರ್ಗ್ಯಾ rghyā ರ್ಗ್ಯಾ rghyē ರ್ಗ್ಯೇ

rca ರ್ಕಾ rci ರ್ಕಿ

rcya ರ್ಕ್ಯಾ rcyā ರ್ಕ್ಯಾ

rja ರ್ಜಾ rji ರ್ಜಿ

r̐na ರ್ನಾ r̐nē ರ್ನೇ

rta ರ್ತಾ rti ರ್ತಿ

rtma ರ್ತ್ಮಾ

rtra ರ್ತ್ರಾ rtrē ರ್ತ್ರೇ

rtsnya ರ್ತ್ಸನ್ಯಾ rtsnyē ರ್ತ್ಸನ್ಯೇ

r̐tha ರ್ಥಾ r̐thī ರ್ಥಿ

r̐thya ರ್ಥ್ಯಾ

rda ರ್ದಾ rdū ರ್ದು

rdha ರ್ದಾ

rdhna ರ್ದನ್ಯಾ

rdhva ರ್ದ್ವಾ



rpa ರ್ಪ

rbra ಬ್ರ

rbha ಭ್ರ ರbhū ಭೂ

rma ರ್ಮ ರmā ರ್ಮಾ

rya ರ್ಯ ರyā ರ್ಯಾ ರyo ರ್ಯೊ

rla ರ್ಲ ರlo ರ್ಲೊ

rva ರ್ವ ರ್ವಿ ರ್ವೀ

rvya ರ್ವ್ಯ ರ್ವ್ಯೀ

rśa ರ್ಶ

rśva ರ್ಶ್ವ

rṣa ರ್ಷ ರṣē ರ್ಷೇ

rṣṇa ರ್ಷ್ಣ

rha ರ್ಹ

lka ಲ್ಕ ಲkī ಲ್ಕೀ

lkya ಲ್ಕ್ಯ ಲ್ಕ್ಯೀ

lga ಲ್ಗ ಲgu ಲ್ಗು

lpa ಲ್ಪ

lbhya ಲ್ಭ್ಯ ಲbhyē ಲ್ಭ್ಯೇ

lma ಲ್ಮ

lya ಲ್ಯ ಲyā ಲ್ಯಾ ಲyu ಲ್ಯು ಲyē ಲ್ಯೇ

lla ಲ್ಲ

lva ಲ್ವ

lha ಲ್ಹ

vya ವ್ಯ ವyā ವ್ಯಾ vya ವ್ಯು ವyē ವ್ಯೇ

vra ವ್ರ ವrā ವ್ರಾ vrī ವ್ರೀ vrē ವ್ರೇ

śca ಶ್ಚ ścā ಶ್ಚಾ ści ಶ್ಚಿ ścē ಶ್ಚೀ ścai ಶ್ಚೈ

ścya ಶ್ಚ್ಯ ścyu ಶ್ಚ್ಯು

śna ಶ್ಢ śnā ಶ್ಢಾ śnī ಶ್ಢೀ śnu ಶ್ಢು

śma ಶ್ಮ

śya ಶ್ಯೆ śyā ಶ್ಯಾ śyē ಶ್ಯೇ śyai ಶ್ಯೈ  
 śra ಶ್ರಾ śrā ಶ್ರಾ śri ಶ್ರಿ śrī ಶ್ರೀ ಶ್ರೀ ಶ್ರೀ  
 śru ಶ್ರು śrē ಶ್ರೇ śro ಶ್ರೋ  
 śla ಶ್ಲಾ ślā ಶ್ಲಾ śli ಶ್ಲಿ ślē ಶ್ಲೇ ślō ಶ್ಲೋ  
 śva ಶ್ವಾ śvi ಶ್ವಿ śvē ಶ್ವೇ śvo ಶ್ವೋ  
 śśa (for -ḥ ś-) ಶ್ಶಾ śśu ಶ್ಶು  
 śśra ಶ್ಶ್ರಾ śśru ಶ್ಶ್ರು

ṣka ṣಕಾ ṣkā ṣಕಾ ṣku ṣಕು ṣkṛ ṣಕೃ  
 ṣkra ṣಕ್ರಾ ṣkrā ṣಕ್ರಾ  
 ṣṭa ṣಠಾ ṣṭā ṣಠಾ ṣṭi ṣಠಿ ṣṭu ṣಠು  
 ṣṭau ṣಠೌ  
 ṣṭya ṣಠ್ಯಾ ṣṭyā ṣಠ್ಯಾ ṣṭya ṣಠ್ಯಾ  
 ṣṭra ṣಠ್ರಾ ṣṭrā ṣಠ್ರಾ ṣṭrē ṣಠ್ರೇ  
 ṣṭro ṣಠ್ರೋ  
 ṣṭva ṣಠ್ರವಾ ṣṭvā ṣಠ್ರವಾ

ṣṭha ṣಠ್ಯಾ ṣṭhā ṣಠ್ಯಾ ṣṭhi ṣಠ್ಯಿ ṣṭhē ṣಠ್ಯೇ  
 ṣṇa ṣಞ್ಯಾ ṣṇu ṣಞ್ಯು ṣṇo ṣಞ್ಯೋ ṣṇau ṣಞ್ಯೌ  
 ṣṇya ṣಞ್ಯಾ  
 ṣpa ṣಪ್ಯಾ ṣpā ṣಪ್ಯಾ ṣpi ṣಪ್ಯಿ ṣpu ṣಪ್ಯು  
 ṣpū ṣಪ್ಯೌ ṣpai ṣಪ್ಯೈ  
 ṣpra ṣಪ್ರಾ ṣprā ṣಪ್ರಾ  
 ṣma ṣಮ್ಯಾ ṣmā ṣಮ್ಯಾ ṣmi ṣಮ್ಯಿ  
 ṣya ṣಯ್ಯಾ ṣyā ṣಯ್ಯಾ ṣyē ṣಯ್ಯೇ ṣyai ṣಯ್ಯೈ  
 ṣva ṣವ್ಯಾ ṣve ṣವ್ಯೇ

ska ಸಕಾ skā ಸಕಾ skṛ ಸಕೃ  
 skha ಸಕ್ರಾ skhā ಸಕ್ರಾ skṛ ಸಕ್ರೃ  
 sta ಸಠಾ stā ಸಠಾ stu ಸಠು ste ಸಠೈ sto ಸಠೋ  
 stau ಸಠೌ  
 stya ಸಠ್ಯಾ stye ಸಠ್ಯೇ styo ಸಠ್ಯೋ  
 stra ಸಠ್ರಾ strā ಸಠ್ರಾ strī ಸಠ್ರೀ strē ಸಠ್ರೇ



strya ಸ್ರೈ

stva ಸ್ತ್ವ ಸ್ತ್ವಿ ಸ್ತ್ವಿ

stha ಸ್ಥ ಸ್ಥಿ ಸ್ಥಿ ಸ್ಥು ಸ್ಥು ಸ್ಥೇ ಸ್ಥೇ

sthai ಸ್ಥೈ ಸ್ಥೌ ಸ್ಥೌ

sthya ಸ್ಥೈ ಸ್ಥೈ ಸ್ಥೈ

sna ಸ್ನ ಸ್ನಾ ಸ್ನಾ ಸ್ನಿ ಸ್ನಿ

spa ಸ್ಪ ಸ್ಪ್ರ ಸ್ಪ್ರ

spha ಸ್ಫ ಸ್ಫಿ ಸ್ಫಿ ಸ್ಫು ಸ್ಫು ಸ್ಫು ಸ್ಫು

spho ಸ್ಫೌ ಸ್ಫೌ

sma ಸ್ಮ ಸ್ಮಿ ಸ್ಮಿ ಸ್ಮ್ರ ಸ್ಮ್ರ ಸ್ಮೈ ಸ್ಮೈ

smya ಸ್ಮೈ ಸ್ಮೈ

sya ಸ್ಯ ಸ್ಯಾ ಸ್ಯಾ ಸ್ಯೇ ಸ್ಯೇ ಸ್ಯೈ ಸ್ಯೈ

syo ಸ್ಯೌ ಸ್ಯೌ

sra ಸ್ರ ಸ್ರಾ ಸ್ರಾ ಸ್ರೋ ಸ್ರೋ

sva ಸ್ವ ಸ್ವಾ ಸ್ವಾ ಸ್ವಿ ಸ್ವಿ ಸ್ವೇ ಸ್ವೇ

ssa ಸ್ಸ ಸ್ಸು ಸ್ಸು ಸ್ಸೋ ಸ್ಸೋ

ssva ಸ್ಸವ ಸ್ಸವೇ ಸ್ಸವೇ

hṇa ಹ್ಣ ಹ್ಣಾ ಹ್ಣಾ hṇi ಹಿ ಹಿ ಹ್ಣೇ ಹ್ಣೇ

hna ಹ್ನ ಹ್ನಿ ಹಿ ಹಿ ಹ್ನೇ ಹ್ನೇ

hma ಹ್ಮ ಹ್ಮಾ ಹ್ಮಾ hmo ಹ್ಮೋ ಹ್ಮೋ

hya ಹ್ಯ ಹ್ಯಾ ಹ್ಯಾ hyo ಹ್ಯೋ ಹ್ಯೋ

hra ಹ್ರ ಹ್ರಿ ಹಿ ಹಿ

hla ಹ್ಲ ಹ್ಲಾ ಹ್ಲಾ

hva ಹ್ವ ಹ್ವಾ ಹ್ವಾ hvi ಹಿ ಹಿ

*Appendix: Distinctive Features of Nandinagari*

<i>Vowels</i>	<i>Initial</i>	<i>Diacritic</i>	<i>k-Ligatures</i>
a	𑌕 & 𑌖 & 𑌗		𑌕
ā	𑌕𑌃 & 𑌖𑌃 & 𑌗𑌃	𑌕𑌃	𑌕𑌃
i	𑌕 & 𑌖	𑌕𑌃 & 𑌖𑌃 & 𑌗𑌃	𑌕𑌃 & 𑌖𑌃 & 𑌗𑌃
ī	𑌕𑌃 & 𑌖𑌃	𑌕𑌃	𑌕𑌃
u	𑌕 & 𑌖	𑌕𑌃	𑌕𑌃
ū	𑌕𑌃 & 𑌖𑌃	𑌕𑌃	𑌕𑌃
ṛ	𑌕 (="ṛ")	𑌕𑌃	𑌕𑌃
ṝ	𑌕 (="ṝ")	𑌕𑌃	𑌕𑌃
ḥ	(not documented)	𑌕𑌃	𑌕𑌃
ī̄	(not documented)		
e	𑌕 & 𑌖	𑌕𑌃	𑌕𑌃
ai	𑌕 & 𑌖	𑌕𑌃	𑌕𑌃
o	𑌕 & 𑌖	𑌕𑌃	𑌕𑌃
au	𑌕	𑌕𑌃	𑌕𑌃



*Consonants: Velar*

ka	क
kha	ख & ग
ga	ग & ग & ग & ग & ग
gha	घ & ञ
ṅa*	ङ

*Palatal*

ca	च & च
cha	छ & छ & छ (cf. ccha)
ja	ज & ज
jha†	झ
ña	(not documented)

*Retroflex*

ṭa	ट & ट & ट
ṭha	ठ & ठ & ठ (cf. ḍha)
ḍa	ड & ड
ḍha	ढ
ṇa	ण

*Dental*

ta	त
tha	थ & थ
da	द & द
dha	ध & ध & ध
na	न

\* interpolated from conjuncts

† to be distinguished from ञ ru

*Labial*

pa	प & प
pha	फ & फ
ba	ब
bha	भ & भ
ma	म

*Sibilants*

śa	श & श
ṣa	ष & ष
sa	स & स

*Sonorants*

ya	य & य & प & प & प
ra	र
la	ल & ल
va	व & व

*Other*

ha	ह & ह
ḷa	ळ

*Additional Graphs*

०	-ṃ ( <i>anusvāra</i> )
ॠ	-ñ ( <i>anunāsiḥ</i> )
ॡ & ॢ	-ḥ ( <i>visarga</i> )
ॣ	<i>avagraha</i>
◌̣ & ◌̤	<i>virāma</i> , e.g. -ṭ त̣ -t̤ त̤ & त̥
◌̇ & ◌̈ & ◌̉	Vedic accents (preceding accented syllables)
ॐ	<i>om</i>

*Numerals (cf. pp. 138, 180)*

०	१	२ & ३ & ४ & ५	६	७ & ८
1	2	3	4	5
६ & ७	८ & ९	१० & ११	१२ & १३	१४ & १५
6	7	8	9	0

*Conjuncts*

kka	क्क	gga	ग्ग
kca	क्च	gna	ग्न
кта	क्त्	gya	ग्य
ktyā	क्त्वा	gra	ग्र
ktra	क्त्र	gla	ग्ल
ktva	क्त्वा	ghna	घ्न
ktha	क्त्थ		
kya	क्य		
kra	क्र	ñ- usually appears as anusvāra	
kla	क्ल	ñmu	न्मु
kṣa	क्ष	kṣū	क्षू
kṣma	क्ष्म	cca	च्च
kṣmyā	क्ष्म्या	ccha	च्च (cf. cha) च्छ
kṣya	क्ष्य	cchṛ	च्छृ (also for cchru)
		cchva	च्छ्व
khya	क्य	cya	च्य



cyu	चु	dhva	ध्व
cra	च		
		nya	न्य
jjha	ज्झ	nva	नव
jña	ज्ञ		
jñya	ज्ञ्य	tka	त्क
jya	ज्य	tku	त्कु
jyo	ज्यो	tta	त्त
jva	ज्व	tna	त्न
		tpa	त्प
		tpra	त्प्र
<i>ñ- is usually appears as anusvāra</i>		tpha	त्फ
		tma	त्म
tya	त्य	tmya	त्म्य
ṭva	ट्व	tya	त्या
		tra	त्र
dya	द्य	trya	त्र्य

iva	इव	dhva	ध्व
isa	इश		
tsya	इश	nta	न्त
tsva	इश्व	nma	न्म
		nya	न्य
		nva	नव
dga	ङ		
dda	ङ्ग	pta	प्त
ddha	ङ्ग	pna	प्न
dba	ड	pno	प्नो
dbra	ड्व	pra	प्र
dma	डम		
dya	ड्य	bda	ब्द
dra	ड्र	bra	ब्र
dva	ड्व		
dhya	ड्य	bhya	भ्य

bhra	𑂔	vya	𑂶
		vra	𑂷
mpa	𑂢		
mya	𑂢𑂰	śca	𑂶𑂰
mra	𑂢𑂰	śna	𑂶𑂰𑂰
		śya	𑂶𑂰𑂰
yya	𑂢𑂰 𑂢𑂰	śra	𑂶𑂰𑂰
		śrī	𑂶𑂰𑂰 𑂶𑂰𑂰
rda	𑂶	śva	𑂶𑂰𑂰
rma	𑂶𑂰		
rya	𑂶𑂰	ška	𑂶𑂰 𑂶𑂰
rṣa	𑂶𑂰	ṣkr	𑂶𑂰
rṣe	𑂶𑂰	ṣta	𑂶𑂰
rṣya	𑂶𑂰	ṣtra	𑂶𑂰
		ṣtva	𑂶𑂰 𑂶𑂰
lkya	𑂶𑂰	ṣtha	𑂶𑂰 𑂶𑂰

ṣṇa	𑂶𑂰	sma	𑂶𑂰 𑂶𑂰
ṣṇu	𑂶𑂰	sya	𑂶𑂰𑂰 𑂶𑂰𑂰
ṣṇva	𑂶𑂰	sra	𑂶𑂰𑂰 𑂶𑂰𑂰
ṣma	𑂶𑂰 𑂶𑂰	sva	𑂶𑂰𑂰 𑂶𑂰𑂰
ṣya	𑂶𑂰		
ṣva	𑂶𑂰	hna	𑂶𑂰
		hma	𑂶𑂰
ska	𑂶𑂰 𑂶𑂰	hya	𑂶𑂰
sta	𑂶𑂰 𑂶𑂰	hla	𑂶𑂰
stra	𑂶𑂰 𑂶𑂰	hva	𑂶𑂰
stha	𑂶𑂰 𑂶𑂰 𑂶𑂰		



# *Checklist of Conjunct Components*

*Conjuncts listed in the sequence of their second component*

kk	rg	tt	ttv
nk	rgy	nt	nt
nkt		st	nty
nktv	kc	sty	ntr
nky	cc	str	ntv
nkr	nc	stv	nts
nkş	ncy		pt
nkşy	rc	tth	ptv
tk	rcy	nth	rt
tkr	şc	sth	rtth
tkş			rtv
rk	cch	dd	rtr
lk	cchr	nd	st
şk	cchv	ndy	sty
şkr	nch	ndr	str
sk	sch		stv
		ddh	
kkh	gj	ndh	kth
tkh	jj		tth
şkh	jjñ	nn	nth
	nj	nnv	rth
gg	njy	rn	rthy
ng	dj	şn	sth
dg	bj	hn	
dg	rj		gd
dgr		kt	dd
rg		ktv	ddy
rgy	jyh	ktr	ddr
lg		ktv	nd
	cñ	tt	ndy
ggh	jñ	tty	ndr
dgh	jñy	ttr	ndv

bd	snv	mbh	chy
rd	hn	rbh	jy
	hny		ty
gdh		km	thy
gdhr	tp	khm	dy
ddh	tpv	gm	dhy
ddhn	pp	ghm	ny
ddhy	mp	nm	ty
ddhr	rp	cm	thy
ddhv	lp	chm	dy
ndh	lpy	jm	dhy
ndhy	sp	dm	ny
ndhr	spv	tm	py
bdh	sp	tmy	phy
bdhv	spy	thm	by
rdh		dm	bhy
rdhn	tph	dhm	my
rdhv	pph	nm	yy
	mph	pm	ry
kn	sph	phm	ly
kny		bm	vy
khn	db	bhm	sy
gn	dbr	mm	sy
gny	nbr	mmy	hy
ghn	bb	rm	
tn	mb	lm	kr
tny	rb	sm	chr
dn	lb	sm	chry
dhn		hm	jr
nn	gbh		
pn	gbhy		
phn	dbh	ky	
bhn	dbh	khy	
mn	dbhy	gy	
sn	dbhr	ghy	
sn	bbh	cy	

jhr	jl	thv	kşl
tr	tl	dv	kşv
thr	thl	dvy	rş
dr	dhl	nv	rşn
nr	nl	pv	
tr	pl	phv	ks
try	phl	bv	ts
thr	bl	bhv	tsth
dr	bhl	mv	tsn
dhr	ml	rv	tsny
nr	rl	lv	tsy
pr	ll	sv	tsv
phr	şl	şv	ns
br	şl	sv	ps
bhr	sl	hv	psth
mr	hl		psm
lr		nş	psy
vr	kv	rş	psv
sr	khv	rşv	ss
hr	gv	şş	
	ghv		nh
kl	chv	kş	nhv
khl	jv	kşn	nh
gl	thv	kşny	mh
ghl	dv	kşm	rh
nl	dhv	kşmy	
chl	nv	kşy	
	tv	kşr	



*Conjuncts listed in the sequence of their third component*

jjñ	jñy	sty	spr
	ñcy	sny	str
kşñ	ñjy	spy	
kşny	ñđy	smy	ktv
rşñ	ñny	hny	kşv
	ñhy		ñhv
ñkt	tty	ktr	ttv
ñktv	tny	kşr	tsv
	tmy	ñkr	ddhv
tsth	try	cchr	ntv
psth	tsy	ñđr	ndv
rtth	ddy	tkr	ptv
	ddhy	ttr	psv
tsn	dbhy	tpr	bdhv
tsny	dvy	dgr	rdhv
ddhn	nty	ddr	rşv
rdhn	ndy	gdhr	ştv
	ndhy	ddhr	stv
ky	psy	dbr	
kny	mmy	dbhr	ñkş
kşy	rgy	ntr	ñkşy
gny	rghy	ndr	tkş
gbhy	rcy	ndhr	
gry	rtty	nbr	nts
ghry	rthy	rtr	
ñky	lpy	şkr	
chry	şty	ştr	

*Conjuncts listed in the sequence of their fourth component*

kşny	ñkşy	ñktv
kşmy	tsny	

*Reverse index of conjuncts*

kk	şth	dn	
ñk	đđ	dhn	dm
tk	ñđ	nn	dhm
tk	ñđh	pn	nm
lk	ññ	bhn	pm
şk	rñ	mn	lm
sk	şñ	vn	śm
kkh	kşñ	śn	śm
ñkh	hñ	sn	kşm
skh	kt	tsn	sm
ng	ñkt	hn	hm
đg	tt	tp	ky
dg	nt	mp	khy
lg	pt	rp	ñkhy
ngh	st	lp	gy
dgh	kth	şp	ngy
ññ	tth	sp	ghy
cc	nth	tph	nghy
ñc	sth	sph	rghy
rc	gd	db	cy
śc	dd	bb	ścy
cch	nd	mb	chy
ñch	bd	gbh	jy
jj	rd	dbh	jñy
ñj	gdh	bbh	ty
bj	ddh	mbh	şty
jjh	nddh	km	thy
cñ	ndh	gm	şthy
jjñ	bdh	ghm	đy
jñ	kn	ñm	đhy
tt	khn	cm	ny
ñt	gn	jm	şny
ş	ghn	ñm	ty
ñth	tn	tm	ky
			tty

nty	ly	ndhr	stv
pty	kly	gdhr	dv
sty	vy	nr	ddv
thy	dvy	pr	dhv
sthy	śvy	mpr	gdhv
dy	śy	spr	ddhv
ddy	śy	br	bdhv
dhy	nkśy	dbr	nv
ddhy	sy	bhr	bhv
ndhy	tsy	mr	yv
ny	hy	vr	rv
gny	kr	śr	lv
tny	śkr	sr	śv
nnny	skr	hr	śv
tsny	gr	kl	kśv
py	ngr	gl	nkśv
phy	dgr	pl	sv
by	ghr	ml	tsv
mby	nghr	ll	hv
bhy	chr	śl	ñś
gbhy	cchr	hl	kś
dbhy	jr	kv	nkś
my	śtr	gv	rś
tny	thr	cchv	śś
kśmy	dhr	jv	ts
smy	tr	jiv	ts
yy	ktr	tv	nts
ry	ttr	śtv	ns
kry	ntr	dhv	ps
gry	str	nv	ss
śtry	dr	ktv	rh
try	ddr	nktr	lh
dry	ndr	tv	
śry	dhr	ttv	

*The Bṛhaspati Cycle**According to the South Indian Calendar (1207-1986 A.D.)*

1 Prabhava	1207	1267	1327	1387	1447	1507	1567	1627	1687	1747	1807	1867	1927
2 Vibhava	1208	1268	1328	1388	1448	1508	1568	1628	1688	1748	1808	1868	1928
3 Śukla	1209	1269	1329	1389	1449	1509	1569	1629	1689	1749	1809	1869	1929
4 Pramoda	1210	1270	1330	1390	1450	1510	1570	1630	1690	1750	1810	1870	1930
5 Prajāpati	1211	1271	1331	1391	1451	1511	1571	1631	1691	1751	1811	1871	1931
6 Āṅgiras	1212	1272	1332	1392	1452	1512	1572	1632	1692	1752	1812	1872	1932
7 Śrīmukha	1213	1273	1333	1393	1453	1513	1573	1633	1693	1753	1813	1873	1933
8 Bhāva	1214	1274	1334	1394	1454	1514	1574	1634	1694	1754	1814	1874	1934
9 Yuva	1215	1275	1335	1395	1455	1515	1575	1635	1695	1755	1815	1875	1935
10 Dhātṛ	1216	1276	1336	1396	1456	1516	1576	1636	1696	1756	1816	1876	1936
11 Īśvara	1217	1277	1337	1397	1457	1517	1577	1637	1697	1757	1817	1877	1937
12 Bahudhānya	1218	1278	1338	1398	1458	1518	1578	1638	1698	1758	1818	1878	1938
13 Pramāthin	1219	1279	1339	1399	1459	1519	1579	1639	1699	1759	1819	1879	1939
14 Vikrama	1220	1280	1340	1400	1460	1520	1580	1640	1700	1760	1820	1880	1940
15 Vṛṣa	1221	1281	1341	1401	1461	1521	1581	1641	1701	1761	1821	1881	1941
16 Citrabhānu	1222	1282	1342	1402	1462	1522	1582	1642	1702	1762	1822	1882	1942
17 Subhānu	1223	1283	1343	1403	1463	1523	1583	1643	1703	1763	1823	1883	1943
18 Tāraṇa	1224	1284	1344	1404	1464	1524	1584	1644	1704	1764	1824	1884	1944
19 Pārthiva	1225	1285	1345	1405	1465	1525	1585	1645	1705	1765	1825	1885	1945
20 Vyaya	1226	1286	1346	1406	1466	1526	1586	1646	1706	1766	1826	1886	1946
21 Sarvajit	1227	1287	1347	1407	1467	1527	1587	1647	1707	1767	1827	1887	1947
22 Sarvadhārin	1228	1288	1348	1408	1468	1528	1588	1648	1708	1768	1828	1888	1948
23 Virodhi	1229	1289	1349	1409	1469	1529	1589	1649	1709	1769	1829	1889	1949
24 Vikṛta	1230	1290	1350	1410	1470	1530	1590	1650	1710	1770	1830	1890	1950
25 Khara	1231	1291	1351	1411	1471	1531	1591	1651	1711	1771	1831	1891	1951
26 Nandana	1232	1292	1352	1412	1472	1532	1592	1652	1712	1772	1832	1892	1952
27 Vijaya	1233	1293	1353	1413	1473	1533	1593	1653	1713	1773	1833	1893	1953
28 Jaya	1234	1294	1354	1414	1474	1534	1594	1654	1714	1774	1834	1894	1954



29	Manmatha	1235	1295	1355	1415	1475	1535	1595	1655	1715	1775	1835	1895	1955
30	Durmukha	1236	1296	1356	1416	1476	1536	1596	1656	1716	1776	1836	1896	1956
31	Hemalamba	1237	1297	1357	1417	1477	1537	1597	1657	1717	1777	1837	1897	1957
32	Vilamba	1238	1298	1358	1418	1478	1538	1598	1658	1718	1778	1838	1898	1958
33	Vikārin	1239	1299	1359	1419	1479	1539	1599	1659	1719	1779	1839	1899	1959
34	Śārvarin	1240	1300	1360	1420	1480	1540	1600	1660	1720	1780	1840	1900	1960
35	Plava	1241	1301	1361	1421	1481	1541	1601	1661	1721	1781	1841	1901	1961
36	Subhakt	1242	1302	1362	1422	1482	1542	1602	1662	1722	1782	1842	1902	1962
37	Śobhana	1243	1303	1363	1423	1483	1543	1603	1663	1723	1783	1843	1903	1963
38	Krodhin	1244	1304	1364	1424	1484	1544	1604	1664	1724	1784	1844	1904	1964
39	Viśvāvasu	1245	1305	1365	1425	1485	1545	1605	1665	1725	1785	1845	1905	1965
40	Parābhava	1246	1306	1366	1426	1486	1546	1606	1666	1726	1786	1846	1906	1966
41	Plavaṅga	1247	1307	1367	1427	1487	1547	1607	1667	1727	1787	1847	1907	1967
42	Kilaka	1248	1308	1368	1428	1488	1548	1608	1668	1728	1788	1848	1908	1968
43	Saumya	1249	1309	1369	1429	1489	1549	1609	1669	1729	1789	1849	1909	1969
44	Sādhāraṇa	1250	1310	1370	1430	1490	1550	1610	1670	1730	1790	1850	1910	1970
45	Virodhakt	1251	1311	1371	1431	1491	1551	1611	1671	1731	1791	1851	1911	1971
46	Paridhāvin	1252	1312	1372	1432	1492	1552	1612	1672	1732	1792	1852	1912	1972
47	Pramādin	1253	1313	1373	1433	1493	1553	1613	1673	1733	1793	1853	1913	1973
48	Ānanda	1254	1314	1374	1434	1494	1554	1614	1674	1734	1794	1854	1914	1974
49	Rākṣasa	1255	1315	1375	1435	1495	1555	1615	1675	1735	1795	1855	1915	1975
50	(A)nala	1256	1316	1376	1436	1496	1556	1616	1676	1736	1796	1856	1916	1976
51	Piṅgala	1257	1317	1377	1437	1497	1557	1617	1677	1737	1797	1857	1917	1977
52	Kālayukta	1258	1318	1378	1438	1498	1558	1618	1678	1738	1798	1858	1918	1978
53	Siddhārtin	1259	1319	1379	1439	1499	1559	1619	1679	1739	1799	1859	1919	1979
54	Raudra	1260	1320	1380	1440	1500	1560	1620	1680	1740	1800	1860	1920	1980
55	Durmati	1261	1321	1381	1441	1501	1561	1621	1681	1741	1801	1861	1921	1981
56	Dundubhi	1262	1322	1382	1442	1502	1562	1622	1682	1742	1802	1862	1922	1982
57	Rudhīrodgārin	1263	1323	1383	1443	1503	1563	1623	1683	1743	1803	1863	1923	1983
58	Raktākṣa	1264	1324	1384	1444	1504	1564	1624	1684	1744	1804	1864	1924	1984
59	Krodhana	1265	1325	1385	1445	1505	1565	1625	1685	1745	1805	1865	1925	1985
60	Kṣaya	1266	1326	1386	1446	1506	1566	1626	1686	1746	1806	1866	1926	1986

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# Grantha Tamil Outlines

	a	ā	i	ī	u	ū	ṛ	ṝ	ḷ	ḹ	e	ai	o	au
k	க	கா	கி	கீ	கௌ	கூ	கர	கரீ	கல	கலீ	கெ	கெஅ	கொ	கௌ
kh	க	கா	கி	கீ	கௌ	கூ	கர	கரீ	கல	கலீ	கெ	கெஅ	கொ	கௌ
g	க	கா	கி	கீ	கௌ	கூ	கர	கரீ	கல	கலீ	கெ	கெஅ	கொ	கௌ
gh	க	கா	கி	கீ	கௌ	கூ	கர	கரீ	கல	கலீ	கெ	கெஅ	கொ	கௌ
ṇ	க	கா	கி	கீ	கௌ	கூ	கர	கரீ	கல	கலீ	கெ	கெஅ	கொ	கௌ
c	ச	சா	சி	சீ	சௌ	சூ	சர	சரீ	சல	சலீ	செ	செஅ	சொ	சௌ
ch	ச	சா	சி	சீ	சௌ	சூ	சர	சரீ	சல	சலீ	செ	செஅ	சொ	சௌ
j	ச	சா	சி	சீ	சௌ	சூ	சர	சரீ	சல	சலீ	செ	செஅ	சொ	சௌ
jh	ச	சா	சி	சீ	சௌ	சூ	சர	சரீ	சல	சலீ	செ	செஅ	சொ	சௌ
ṇ	ச	சா	சி	சீ	சௌ	சூ	சர	சரீ	சல	சலீ	செ	செஅ	சொ	சௌ
ṭ	ட	டா	டி	டீ	டௌ	டூ	டர	டரீ	டல	டலீ	டெ	டெஅ	டொ	டௌ
ṭh	ட	டா	டி	டீ	டௌ	டூ	டர	டரீ	டல	டலீ	டெ	டெஅ	டொ	டௌ
ḍ	ட	டா	டி	டீ	டௌ	டூ	டர	டரீ	டல	டலீ	டெ	டெஅ	டொ	டௌ
ḍh	ட	டா	டி	டீ	டௌ	டூ	டர	டரீ	டல	டலீ	டெ	டெஅ	டொ	டௌ
ṇ	ண	ணா	ணி	ணீ	ணௌ	ணூ	ணர	ணரீ	ணல	ணலீ	ணெ	ணெஅ	ணொ	ணௌ
t	த	தா	தி	தீ	தௌ	தூ	தர	தரீ	தல	தலீ	தெ	தெஅ	தொ	தௌ
th	த	தா	தி	தீ	தௌ	தூ	தர	தரீ	தல	தலீ	தெ	தெஅ	தொ	தௌ
d	த	தா	தி	தீ	தௌ	தூ	தர	தரீ	தல	தலீ	தெ	தெஅ	தொ	தௌ
dh	த	தா	தி	தீ	தௌ	தூ	தர	தரீ	தல	தலீ	தெ	தெஅ	தொ	தௌ
n	ந	நா	நி	நீ	நௌ	நூ	நர	நரீ	நல	நலீ	நெ	நெஅ	நொ	நௌ
p	ப	பா	பி	பீ	பௌ	பூ	பர	பரீ	பல	பலீ	பெ	பெஅ	பொ	பௌ
ph	ப	பா	பி	பீ	பௌ	பூ	பர	பரீ	பல	பலீ	பெ	பெஅ	பொ	பௌ
b	ப	பா	பி	பீ	பௌ	பூ	பர	பரீ	பல	பலீ	பெ	பெஅ	பொ	பௌ
bh	ப	பா	பி	பீ	பௌ	பூ	பர	பரீ	பல	பலீ	பெ	பெஅ	பொ	பௌ
m	ம	மா	மி	மீ	மௌ	மூ	மர	மரீ	மல	மலீ	மெ	மெஅ	மொ	மௌ
y	ய	யா	யி	யீ	யௌ	யூ	யர	யரீ	யல	யலீ	யெ	யெஅ	யொ	யௌ
r	ர	ரா	ரி	ரீ	ரௌ	ரூ	ரர	ரரீ	ரல	ரலீ	ரெ	ரெஅ	ரொ	ரௌ
l	ல	லா	லி	லீ	லௌ	லூ	லர	லரீ	லல	லலீ	லெ	லெஅ	லொ	லௌ
v	வ	வா	வி	வீ	வௌ	வூ	வர	வரீ	வல	வலீ	வெ	வெஅ	வொ	வௌ
ś	ச	சா	சி	சீ	சௌ	சூ	சர	சரீ	சல	சலீ	செ	செஅ	சொ	சௌ
ṣ	ச	சா	சி	சீ	சௌ	சூ	சர	சரீ	சல	சலீ	செ	செஅ	சொ	சௌ
s	ச	சா	சி	சீ	சௌ	சூ	சர	சரீ	சல	சலீ	செ	செஅ	சொ	சௌ
h	ஹ	ஹா	ஹி	ஹீ	ஹௌ	ஹூ	ஹர	ஹரீ	ஹல	ஹலீ	ஹெ	ஹெஅ	ஹொ	ஹௌ
ḷ	ல	லா	லி	லீ	லௌ	லூ	லர	லரீ	லல	லலீ	லெ	லெஅ	லொ	லௌ

1 pre-consonantal -r-, e.g. sarva-: ஸர்வா  
 2 -m, e.g. alam: அலம்  
 3 anusvāra  
 4 2 8 visarga

5 1 2 3 4 5 6 7 8 9 0 10 100 1000

## Tamil Outlines



# Grantha Malayalam Outlines

	a	ā	i	ī	u	ū	ṛ	ṝ	ḷ	ḹ	e	ē	ai	o	ō	au
	അ	ആ	ഇ	ഈ	ഉ	ഊ	ഋ	ൠ	ഌ	ൡ	എ	ഈ	ഐ	ഒ	ഓ	ഔ
k	ക	കാ	കി	കീ	കു	കൂ	കൃ	കു̄	ക്ക	ക്ക̄	കെ	കേ	കൈ	കൊ	കോ	കൗ
kh	ഖ	ഖാ	ഖി	ഖീ	ഖു	ഖൂ	ഖൃ	ഖു̄	ഖ്ക	ഖ്ക̄	ഖെ	ഖേ	ഖൈ	ഖൊ	ഖോ	ഖൗ
g	ഗ	ഗാ	ഗി	ഗീ	ഗു	ഗൂ	ഗൃ	ഗു̄	ഗ്ക	ഗ്ക̄	ഗെ	ഗേ	ഗൈ	ഗൊ	ഗോ	ഗൗ
gh	ഘ	ഘാ	ഘി	ഘീ	ഘു	ഘൂ	ഘൃ	ഘു̄	ഘ്ക	ഘ്ക̄	ഘെ	ഘേ	ഘൈ	ഘൊ	ഘോ	ഘൗ
ṇ	ങ	ങാ	ങി	ങീ	ങു	ങൂ	ങൃ	ങു̄	ങ്ക	ങ്ക̄	ങെ	ങേ	ങൈ	ങൊ	ങോ	ങൗ
c	ച	ചാ	ചി	ചീ	ചു	ചൂ	ചൃ	ചു̄	ച്ക	ച്ക̄	ചെ	ചേ	ചൈ	ചൊ	ചോ	ചൗ
ch	ഛ	ഛാ	ഛി	ഛീ	ഛു	ഛൂ	ഛൃ	ഛു̄	ഛ്ക	ഛ്ക̄	ഛെ	ഛേ	ഛൈ	ഛൊ	ഛോ	ഛൗ
j	ജ	ജാ	ജി	ജീ	ജു	ജൂ	ജൃ	ജു̄	ജ്ക	ജ്ക̄	ജെ	ജേ	ജൈ	ജൊ	ജോ	ജൗ
jh	ഝ	ഝാ	ഝി	ഝീ	ഝു	ഝൂ	ഝൃ	ഝു̄	ഝ്ക	ഝ്ക̄	ഝെ	ഝേ	ഝൈ	ഝൊ	ഝോ	ഝൗ
ñ	ഞ	ഞാ	ഞി	ഞീ	ഞു	ഞൂ	ഞൃ	ഞു̄	ഞ്ച	ഞ്ച̄	ഞ്ഞെ	ഞ്ഞേ	ഞ്ഞൈ	ഞ്ഞൊ	ഞ്ഞോ	ഞ്ഞൗ
ṭ	ട	ടാ	ടി	ടീ	ടു	ടൂ	ടൃ	ടു̄	ട്ക	ട്ക̄	ടെ	ടേ	ടൈ	ടൊ	ടോ	ടൗ
ṭh	ഠ	ഠാ	ഠി	ഠീ	ഠു	ഠൂ	ഠൃ	ഠു̄	ഠ്ക	ഠ്ക̄	ഠെ	ഠേ	ഠൈ	ഠൊ	ഠോ	ഠൗ
ḍ	ഡ	ഡാ	ഡി	ഡീ	ഡു	ഡൂ	ഡൃ	ഡു̄	ഡ്ക	ഡ്ക̄	ഡെ	ഡേ	ഡൈ	ഡൊ	ഡോ	ഡൗ
ḍh	ഢ	ഢാ	ഢി	ഢീ	ഢു	ഢൂ	ഢൃ	ഢു̄	ഢ്ക	ഢ്ക̄	ഢെ	ഢേ	ഢൈ	ഢൊ	ഢോ	ഢൗ
ṇ	ണ	ണാ	ണി	ണീ	ണു	ണൂ	ണൃ	ണു̄	ണ്ണ	ണ്ണ̄	ണെ	ണേ	ണൈ	ണൊ	ണോ	ണൗ
t	ത	താ	തി	തീ	തു	തൂ	തൃ	തു̄	ത്ക	ത്ക̄	തെ	തേ	തൈ	തൊ	തോ	തൗ
th	ഥ	ഥാ	ഥി	ഥീ	ഥു	ഥൂ	ഥൃ	ഥു̄	ഥ്ക	ഥ്ക̄	ഥെ	ഥേ	ഥൈ	ഥൊ	ഥോ	ഥൗ
d	ദ	ദാ	ദി	ദീ	ദു	ദൂ	ദൃ	ദു̄	ദ്ക	ദ്ക̄	ദെ	ദേ	ദൈ	ദൊ	ദോ	ദൗ
dh	ധ	ധാ	ധി	ധീ	ധു	ധൂ	ധൃ	ധു̄	ധ്ക	ധ്ക̄	ധെ	ധേ	ധൈ	ധൊ	ധോ	ധൗ
n	ന	നാ	നി	നീ	നു	നൂ	നൃ	നു̄	ന്ക	ന്ക̄	നെ	നേ	നൈ	നൊ	നോ	നൗ
p	പ	പാ	പി	പീ	പു	പൂ	പൃ	പു̄	പ്ക	പ്ക̄	പെ	പേ	പൈ	പൊ	പോ	പൗ
ph	ഫ	ഫാ	ഫി	ഫീ	ഫു	ഫൂ	ഫൃ	ഫു̄	ഫ്ക	ഫ്ക̄	ഫെ	ഫേ	ഫൈ	ഫൊ	ഫോ	ഫൗ
b	ബ	ബാ	ബി	ബീ	ബു	ബൂ	ബൃ	ബു̄	ബ്ക	ബ്ക̄	ബെ	ബേ	ബൈ	ബൊ	ബോ	ബൗ
bh	ഭ	ഭാ	ഭി	ഭീ	ഭു	ഭൂ	ഭൃ	ഭു̄	ഭ്ക	ഭ്ക̄	ഭെ	ഭേ	ഭൈ	ഭൊ	ഭോ	ഭൗ
m	മ	മാ	മി	മീ	മു	മൂ	മൃ	മു̄	മ്ക	മ്ക̄	മെ	മേ	മൈ	മൊ	മോ	മൗ
y	യ	യാ	യി	യീ	യു	യൂ	യൃ	യു̄	യ്ക	യ്ക̄	യെ	യേ	യൈ	യൊ	യോ	യൗ
r	ര	രാ	രി	രീ	രു	രൂ					രെ	രേ	രൈ	രൊ	രോ	രൗ
l	ല	ലാ	ലി	ലീ	ലു	ലൂ	ലൃ	ലു̄			ലെ	ലേ	ലൈ	ലൊ	ലോ	ലൗ
v	വ	വാ	വി	വീ	വു	വൂ	വൃ	വു̄	വ്ക	വ്ക̄	വെ	വേ	വൈ	വൊ	വോ	വൗ
ś	ശ	ശാ	ശി	ശീ	ശു	ശൂ	ശൃ	ശു̄	ശ്ക	ശ്ക̄	ശെ	ശേ	ശൈ	ശൊ	ശോ	ശൗ
ṣ	ഷ	ഷാ	ഷി	ഷീ	ഷു	ഷൂ	ഷൃ	ഷു̄	ഷ്ക	ഷ്ക̄	ഷെ	ഷേ	ഷൈ	ഷൊ	ഷോ	ഷൗ
s	സ	സാ	സി	സീ	സു	സൂ	സൃ	സു̄	സ്ക	സ്ക̄	സെ	സേ	സൈ	സൊ	സോ	സൗ
h	ഹ	ഹാ	ഹി	ഹീ	ഹു	ഹൂ	ഹൃ	ഹു̄	ഹ്ക	ഹ്ക̄	ഹെ	ഹേ	ഹൈ	ഹൊ	ഹോ	ഹൗ
ḷ	ഌ	ഌാ	ഌി	ഌീ	ഌു	ഌൂ	ഌൃ	ഌു̄	ഌ്ക	ഌ്ക̄	ഌെ	ഌേ	ഌൈ	ഌൊ	ഌോ	ഌൗ
ḻ	ഥ	ഥാ	ഥി	ഥീ	ഥു	ഥൂ					ഥെ	ഥേ	ഥൈ	ഥൊ	ഥോ	ഥൗ
ṛ	ഠ	ഠാ	ഠി	ഠീ	ഠു	ഠൂ					ഠെ	ഠേ	ഠൈ	ഠൊ	ഠോ	ഠൗ
o anuvāra                      :                      usarga                      f & f avagraha											ഏ	ഈ	ഊ	ഋ	ൠ	ൡ
											1	2	3	4	5	6
											7	8	9	0	10	100
											1000					

# Telugu Outlines

	a	ā	i	ī	u	ū	ṛ	ṛī	l	lī	e	ē	ai	o	ō	au
k	క	కా	కి	కి	కు	కూ	కృ	కృ	క	క	క	క	క	క	క	క
kh	ఖ	ఖా	ఖి	ఖి	ఖు	ఖూ	ఖృ	ఖృ	ఖ	ఖ	ఖ	ఖ	ఖ	ఖ	ఖ	ఖ
g	గ	గా	గి	గి	గు	గూ	గృ	గృ	గ	గ	గ	గ	గ	గ	గ	గ
gh	ఘ	ఘా	ఘి	ఘి	ఘు	ఘూ	ఘృ	ఘృ	ఘ	ఘ	ఘ	ఘ	ఘ	ఘ	ఘ	ఘ
ṅ	ఙ	ఙా	ఙి	ఙి	ఙు	ఙూ	ఙృ	ఙృ	ఙ	ఙ	ఙ	ఙ	ఙ	ఙ	ఙ	ఙ
c	చ	చా	చి	చి	చు	చూ	చృ	చృ	చ	చ	చ	చ	చ	చ	చ	చ
ch	ఛ	ఛా	ఛి	ఛి	ఛు	ఛూ	ఛృ	ఛృ	ఛ	ఛ	ఛ	ఛ	ఛ	ఛ	ఛ	ఛ
j	జ	జా	జి	జి	జు	జూ	జృ	జృ	జ	జ	జ	జ	జ	జ	జ	జ
jh	ఝ	ఝా	ఝి	ఝి	ఝు	ఝూ	ఝృ	ఝృ	ఝ	ఝ	ఝ	ఝ	ఝ	ఝ	ఝ	ఝ
ñ	ఞ	ఞా	ఞి	ఞి	ఞు	ఞూ	ఞృ	ఞృ	ఞ	ఞ	ఞ	ఞ	ఞ	ఞ	ఞ	ఞ
t	ట	టా	టి	టి	టు	టూ	టృ	టృ	ట	ట	ట	ట	ట	ట	ట	ట
th	ఠ	ఠా	ఠి	ఠి	ఠు	ఠూ	ఠృ	ఠృ	ఠ	ఠ	ఠ	ఠ	ఠ	ఠ	ఠ	ఠ
ḍ	డ	డా	డి	డి	డు	డూ	డృ	డృ	డ	డ	డ	డ	డ	డ	డ	డ
dḥ	ఢ	ఢా	ఢి	ఢి	ఢు	ఢూ	ఢృ	ఢృ	ఢ	ఢ	ఢ	ఢ	ఢ	ఢ	ఢ	ఢ
n	ణ	ణా	ణి	ణి	ణు	ణూ	ణృ	ణృ	ణ	ణ	ణ	ణ	ణ	ణ	ణ	ణ
t	త	తా	తి	తి	తు	తూ	తృ	తృ	త	త	త	త	త	త	త	త
th	థ	థా	థి	థి	థు	థూ	థృ	థృ	థ	థ	థ	థ	థ	థ	థ	థ
d	ద	దా	ది	ది	దు	దూ	దృ	దృ	ద	ద	ద	ద	ద	ద	ద	ద
dḥ	ధ	ధా	ధి	ధి	ధు	ధూ	ధృ	ధృ	ధ	ధ	ధ	ధ	ధ	ధ	ధ	ధ
n	న	నా	ని	ని	ను	నూ	నృ	నృ	న	న	న	న	న	న	న	న
p	ప	పా	పి	పి	పు	పూ	పృ	పృ	ప	ప	ప	ప	ప	ప	ప	ప
ph	ఫ	ఫా	ఫి	ఫి	పు	ఫూ	ఫృ	ఫృ	ఫ	ఫ	ఫ	ఫ	ఫ	ఫ	ఫ	ఫ
b	బ	బా	బి	బి	బు	బూ	బృ	బృ	బ	బ	బ	బ	బ	బ	బ	బ
bh	భ	భా	భి	భి	భు	భూ	భృ	భృ	భ	భ	భ	భ	భ	భ	భ	భ
m	మ	మా	మి	మి	ము	మూ	మృ	మృ	మ	మ	మ	మ	మ	మ	మ	మ
y	య	యా	యి	యి	యు	యా	యృ	యృ	య	య	య	య	య	య	య	య
r	ర	రా	రి	రి	రు	రూ					ర	ర	ర	ర	ర	ర
l	ల	లా	లి	లి	లు	లూ	లృ	లృ			ల	ల	ల	ల	ల	ల
v	వ	వా	వి	వి	వు	వూ	వృ	వృ	వ	వ	వ	వ	వ	వ	వ	వ
ś	శ	శా	శి	శి	శు	శూ	శృ	శృ	శ	శ	శ	శ	శ	శ	శ	శ
ṣ	ష	షా	షి	షి	షు	షూ	షృ	షృ	ష	ష	ష	ష	ష	ష	ష	ష
s	స	సా	సి	సి	సు	సూ	సృ	సృ	స	స	స	స	స	స	స	స
h	హ	హా	హి	హి	హు	హూ	హృ	హృ	హ	హ	హ	హ	హ	హ	హ	హ
l	ళ	ళా	ళి	ళి	ళు	ళూ	ళృ	ళృ	ళ	ళ	ళ	ళ	ళ	ళ	ళ	ళ
r	ఱ	ఱా	ఱి	ఱి	ఱు	ఱూ	ఱృ	ఱృ	ఱ	ఱ	ఱ	ఱ	ఱ	ఱ	ఱ	ఱ

final -n, e.g. dāman: దామణ్  
virāma, e.g. alam: అలమ్

pre-consonantal -r, e.g. arva: అర్వా  
anuvāda  
varga

సంకేత  
avagraha

1 2 3 4 5 6 7 8 9 0



# Kannada Outlines

	a	ā	i	ī	u	ū	ṛ	ṝ	ḷ	ḹ	e	ē	ai	o	ō	au
	ಅ	ಆ	ಇ	ಈ	ಉ	ಊ	ಋ	ೠ	ಌ	ೡ	ಎ	ಏ	ಐ	ಒ	ಓ	ಔ
k	ಕ	ಕಾ	ಕಿ	ಕೀ	ಕು	ಕೂ	ಕೃ	ಕೃ̄	ಕೃ	ಕೃ̄	ಕೆ	ಕೇ	ಕೈ	ಕೊ	ಕೋ	ಕೌ
kh	ಖ	ಖಾ	ಖಿ	ಖೀ	ಖು	ಖೂ	ಖೃ	ಖೃ̄	ಖೃ	ಖೃ̄	ಖೆ	ಖೇ	ಖೈ	ಖೊ	ಖೋ	ಖೌ
g	ಗ	ಗಾ	ಗಿ	ಗೀ	ಗು	ಗೂ	ಗೃ	ಗೃ̄	ಗೃ	ಗೃ̄	ಗೆ	ಗೇ	ಗೈ	ಗೊ	ಗೋ	ಗೌ
gh	ಘ	ಘಾ	ಘಿ	ಘೀ	ಘು	ಘೂ	ಘೃ	ಘೃ̄	ಘೃ	ಘೃ̄	ಘೆ	ಘೇ	ಘೈ	ಘೊ	ಘೋ	ಘೌ
ṇ	ಙ	ಙಾ	ಙಿ	ಙೀ	ಙು	ಙೂ	ಙೃ	ಙೃ̄	ಙೃ	ಙೃ̄	ಙೆ	ಙೇ	ಙೈ	ಙೊ	ಙೋ	ಙೌ
c	ಚ	ಚಾ	ಚಿ	ಚೀ	ಚು	ಚೂ	ಚೃ	ಚೃ̄	ಚೃ	ಚೃ̄	ಚೆ	ಚೇ	ಚೈ	ಚೊ	ಚೋ	ಚೌ
ch	ಛ	ಛಾ	ಛಿ	ಛೀ	ಛು	ಛೂ	ಛೃ	ಛೃ̄	ಛೃ	ಛೃ̄	ಛೆ	ಛೇ	ಛೈ	ಛೊ	ಛೋ	ಛೌ
j	ಜ	ಜಾ	ಜಿ	ಜೀ	ಜು	ಜೂ	ಜೃ	ಜೃ̄	ಜೃ	ಜೃ̄	ಜೆ	ಜೇ	ಜೈ	ಜೊ	ಜೋ	ಜೌ
jh	ಝ	ಝಾ	ಝಿ	ಝೀ	ಝು	ಝೂ	ಝೃ	ಝೃ̄	ಝೃ	ಝೃ̄	ಝೆ	ಝೇ	ಝೈ	ಝೊ	ಝೋ	ಝೌ
ṇ	ಞ	ಞಾ	ಞಿ	ಞೀ	ಞು	ಞೂ	ಞೃ	ಞೃ̄	ಞೃ	ಞೃ̄	ಞೆ	ಞೇ	ಞೈ	ಞೊ	ಞೋ	ಞೌ
ṭ	ಟ	ಟಾ	ಟಿ	ಟೀ	ಟು	ಟೂ	ಟೃ	ಟೃ̄	ಟೃ	ಟೃ̄	ಟೆ	ಟೇ	ಟೈ	ಟೊ	ಟೋ	ಟೌ
th	ಠ	ಠಾ	ಠಿ	ಠೀ	ಠು	ಠೂ	ಠೃ	ಠೃ̄	ಠೃ	ಠೃ̄	ಠೆ	ಠೇ	ಠೈ	ಠೊ	ಠೋ	ಠೌ
ḍ	ಡ	ಡಾ	ಡಿ	ಡೀ	ಡು	ಡೂ	ಡೃ	ಡೃ̄	ಡೃ	ಡೃ̄	ಡೆ	ಡೇ	ಡೈ	ಡೊ	ಡೋ	ಡೌ
ḍh	ಢ	ಢಾ	ಢಿ	ಢೀ	ಢು	ಢೂ	ಢೃ	ಢೃ̄	ಢೃ	ಢೃ̄	ಢೆ	ಢೇ	ಢೈ	ಢೊ	ಢೋ	ಢೌ
ṇ	ಣ	ಣಾ	ಣಿ	ಣೀ	ಣು	ಣೂ	ಣೃ	ಣೃ̄	ಣೃ	ಣೃ̄	ಣೆ	ಣೇ	ಣೈ	ಣೊ	ಣೋ	ಣೌ
t	ತ	ತಾ	ತಿ	ತೀ	ತು	ತೂ	ತೃ	ತೃ̄	ತೃ	ತೃ̄	ತೆ	ತೇ	ತೈ	ತೊ	ತೋ	ತೌ
th	ಥ	ಥಾ	ಥಿ	ಥೀ	ಥು	ಥೂ	ಥೃ	ಥೃ̄	ಥೃ	ಥೃ̄	ಥೆ	ಥೇ	ಥೈ	ಥೊ	ಥೋ	ಥೌ
d	ದ	ದಾ	ದಿ	ದೀ	ದು	ದೂ	ದೃ	ದೃ̄	ದೃ	ದೃ̄	ದೆ	ದೇ	ದೈ	ದೊ	ದೋ	ದೌ
dh	ಧ	ಧಾ	ಧಿ	ಧೀ	ಧು	ಧೂ	ಧೃ	ಧೃ̄	ಧೃ	ಧೃ̄	ಧೆ	ಧೇ	ಧೈ	ಧೊ	ಧೋ	ಧೌ
n	ನ	ನಾ	ನಿ	ನೀ	ನು	ನೂ	ನೃ	ನೃ̄	ನೃ	ನೃ̄	ನೆ	ನೇ	ನೈ	ನೊ	ನೋ	ನೌ
p	ಪ	ಪಾ	ಪಿ	ಪೀ	ಪು	ಪೂ	ಪೃ	ಪೃ̄	ಪೃ	ಪೃ̄	ಪೆ	ಪೇ	ಪೈ	ಪೊ	ಪೋ	ಪೌ
ph	ಫ	ಫಾ	ಫಿ	ಫೀ	ಫು	ಫೂ	ಫೃ	ಫೃ̄	ಫೃ	ಫೃ̄	ಫೆ	ಫೇ	ಫೈ	ಫೊ	ಫೋ	ಫೌ
b	ಬ	ಬಾ	ಬಿ	ಬೀ	ಬು	ಬೂ	ಬೃ	ಬೃ̄	ಬೃ	ಬೃ̄	ಬೆ	ಬೇ	ಬೈ	ಬೊ	ಬೋ	ಬೌ
bh	ಭ	ಭಾ	ಭಿ	ಭೀ	ಭು	ಭೂ	ಭೃ	ಭೃ̄	ಭೃ	ಭೃ̄	ಭೆ	ಭೇ	ಭೈ	ಭೊ	ಭೋ	ಭೌ
m	ಮ	ಮಾ	ಮಿ	ಮೀ	ಮು	ಮೂ	ಮೃ	ಮೃ̄	ಮೃ	ಮೃ̄	ಮೆ	ಮೇ	ಮೈ	ಮೊ	ಮೋ	ಮೌ
y	ಯ	ಯಾ	ಯಿ	ಯೀ	ಯು	ಯೂ	ಯೃ	ಯೃ̄	ಯೃ	ಯೃ̄	ಯೆ	ಯೇ	ಯೈ	ಯೊ	ಯೋ	ಯೌ
r	ರ	ರಾ	ರಿ	ರೀ	ರು	ರೂ					ರೆ	ರೇ	ರೈ	ರೊ	ರೋ	ರೌ
l	ಲ	ಲಾ	ಲಿ	ಲೀ	ಲು	ಲೂ	ಲೃ	ಲೃ̄			ಲೆ	ಲೇ	ಲೈ	ಲೊ	ಲೋ	ಲೌ
v	ವ	ವಾ	ವಿ	ವೀ	ವು	ವೂ	ವೃ	ವೃ̄	ವೃ	ವೃ̄	ವೆ	ವೇ	ವೈ	ವೊ	ವೋ	ವೌ
ś	ಶ	ಶಾ	ಶಿ	ಶೀ	ಶು	ಶೂ	ಶೃ	ಶೃ̄	ಶೃ	ಶೃ̄	ಶೆ	ಶೇ	ಶೈ	ಶೊ	ಶೋ	ಶೌ
ṣ	ಷ	ಷಾ	ಷಿ	ಷೀ	ಷು	ಷೂ	ಷೃ	ಷೃ̄	ಷೃ	ಷೃ̄	ಷೆ	ಷೇ	ಷೈ	ಷೊ	ಷೋ	ಷೌ
s	ಸ	ಸಾ	ಸಿ	ಸೀ	ಸು	ಸೂ	ಸೃ	ಸೃ̄	ಸೃ	ಸೃ̄	ಸೆ	ಸೇ	ಸೈ	ಸೊ	ಸೋ	ಸೌ
h	ಹ	ಹಾ	ಹಿ	ಹೀ	ಹು	ಹೂ	ಹೃ	ಹೃ̄	ಹೃ	ಹೃ̄	ಹೆ	ಹೇ	ಹೈ	ಹೊ	ಹೋ	ಹೌ
ḷ	ಳ	ಳಾ	ಳಿ	ಳೀ	ಳು	ಳೂ	ಳೃ	ಳೃ̄	ಳೃ	ಳೃ̄	ಳೆ	ಳೇ	ಳೈ	ಳೊ	ಳೋ	ಳೌ
r	ಱ	ಱಾ	ಱಿ	ಱೀ	ಱು	ಱೂ	ಱೃ	ಱೃ̄	ಱೃ	ಱೃ̄	ಱೆ	ಱೇ	ಱೈ	ಱೊ	ಱೋ	ಱೌ

final -n, e.g. dāman-: ದಾಮನ

pre-consonantal -r, e.g. sarva-: ಸರ್ವ

virāma, e.g. alam: ಅಲಮ

anusvāra

visarga

avagruha

೧ ೨ ೩ ೪ ೫ ೬ ೭ ೮ ೯ ೦  
1 2 3 4 5 6 7 8 9 0

# Synopsis of Basic Characters

	a	ā	i	ī	u	ū	ṛ	ṝ	l	l̄	e	ē	ai
Grantha Tamil	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇	𑌈	𑌉	𑌊	𑌋	𑌌
Tamil	அ	ஆ	இ	ஈ	உ	ஊ			எ	ஏ		ஐ	ஓ
Malayalam	അ	ആ	ഇ	ഈ	ഉ	ഊ					എ	ഐ	ഓ
Telugu	అ	ఆ	ఇ	ఈ	ఉ	ఊ			ఁ	ఐ	ఐ	ఐ	ఐ
Kannada	ಅ	ಆ	ಇ	ಈ	ಉ	ಊ			ಁ	ಐ	ಐ	ಐ	ಐ
Nandinagari	𑌀	𑌁	𑌂	𑌃	𑌄	𑌅	𑌆	𑌇					

	o	ō	au	ka	kha	ga	gha	ṅa	ca	cha	ja	jha	ṇa
Grantha Tamil		𑌆	𑌇	𑌈	𑌉	𑌊	𑌋	𑌌	𑌍	𑌎	𑌏	𑌐	𑌑
Tamil	ஒ	ஓ	ஔ	க	க	ங	ங	ங	ச	ச	ஜ	ஜ	ண
Malayalam	ഒ	ഓ	ഔ	ക	ക	ഗ	ഗ	ങ	ച	ച	ജ	ജ	ണ
Telugu	ఒ	ఓ	ఔ	క	క	గ	గ	ఙ	చ	చ	జ	జ	ణ
Kannada	ಒ	ಓ	ಔ	ಕ	ಕ	ಗ	ಗ	ಙ	ಚ	ಚ	ಜ	ಜ	ಣ
Nandinagari		𑌆	𑌇	𑌈	𑌉	𑌊	𑌋	𑌌	𑌍	𑌎	𑌏	𑌐	𑌑

	ṭa	ṭha	ḍa	ḍha	ṇa	ta	tha	da	dha	na	pa	pha	ba
Grantha Tamil	𑌒	𑌓	𑌔	𑌕	𑌖	𑌗	𑌘	𑌙	𑌚	𑌛	𑌜	𑌝	𑌞
Tamil	ட				ண	த				ந	ப	ப	ப
Malayalam	ട				ണ	ത				ന	പ	പ	ബ
Telugu	ట	ఠ	డ	ఢ	ణ	త	థ	ద	ధ	న	ప	ఫ	బ
Kannada	ಟ	ಠ	ಡ	ಢ	ಣ	ತ	ಥ	ದ	ಧ	ನ	ಪ	ಫ	ಬ
Nandinagari	𑌒	𑌓	𑌔	𑌕	𑌖	𑌗	𑌘	𑌙	𑌚	𑌛	𑌜	𑌝	𑌞

	bha	ma	ya	ra	la	va	ṣa	ṣa	sa	ha	ḷa	ṛa	ḷa
Grantha Tamil	𑌠	𑌡	𑌢	𑌣	𑌤	𑌥	𑌦	𑌧	𑌨	𑌩	𑌪	𑌫	𑌬
Tamil		ம	ய	ர	ல	வ				ஹ	ள	ர	ல
Malayalam	ഭ	മ	യ	ര	ല	വ				ഹ	ഈ	ര	ല
Telugu	భ	మ	య	ర	ల	వ				హ	ఱ	ర	ల
Kannada	ಭ	ಮ	ಯ	ರ	ಲ	ವ				ಹ	ಱ	ರ	ಲ
Nandinagari	𑌠	𑌡	𑌢	𑌣	𑌤	𑌥	𑌦	𑌧	𑌨	𑌩	𑌪	𑌫	𑌬

	1	2	3	4	5	6	7	8	9	0
Grantha Tamil	𑌭	𑌮	𑌯	𑌰	𑌱	𑌲	𑌳	𑌴	𑌵	𑌶
Malayalam	൧	൨	൩	൪	൫	൬	൭	൮	൯	൦
Telugu	౧	౨	౩	౪	౫	౬	౭	౮	౯	౦
Kannada	೧	೨	೩	೪	೫	೬	೭	೮	೯	೦
Nandinagari	𑌭	𑌮	𑌯	𑌰	𑌱	𑌲	𑌳	𑌴	𑌵	𑌶

\* not documented